



Institute of Certified Management Accountants of Sri Lanka

May 2017 Examination

Integrative Case Study (ICS - 501)

Instructions to candidates:

The Integrative Case Study (ICS - 501) of May 2017 Examination comprises of two scenarios; **Scenario I**, **Scenario II** and the **Question** paper.

Scenario I

Scenario I is provided in this web site and has information about the company and industry, on which the question paper will be based.

This is **not** allowed in the examination hall.

Scenario II

Scenario II is a continuation of **Scenario I**. **Scenario I** together with **Scenario II** will be provided with the **Question paper**, at the **Examination**.

Question paper

The question paper will be of **3 hours** duration and will have **one** question based on **Scenarios I** and **II**.

Healthy Dairy Entrance to the Market

Scenario I

One third of the land in Sri Lanka is considered to be agricultural and of which 75% is under the ownership of smallholding whereas the rest is held by the State. 90% of small holdings comprises of lands less than two hectare in size. Agriculture covers wide range of products and services of which dairy products possess a significant presence in the market. However, domestic dairy products are not adequate to satisfy the local demand and as a result more than 70,000 metric tons of dairy and dairy products are annually imported and which mainly comprise of full cream milk powder (FCMP) by spending more than Rs. 50 billion a year.

Dairy Sector and Yoghurt Industry in Sri Lanka

Majority of dairy sector in Sri Lanka is shared by few big players with a leading presence of Milco a well-known State owned enterprise which began its operations more than 50 years ago with the brand name of highland dairy products. Highland products range from fresh milk to condensed milk with a view to cater the country's long-term goal of self-sufficiency of dairy products. Current demand for milk consumption is 1,700,000 litres a day. Milco accounts for 200,000 litres a day and of which 15 percent is supplied to the fresh milk market. Milco's main business focus remains on procurement of milk from the local farmers for production purposes. Production takes place at its production facilities and they are sold through its sales and distribution channels.

The other major player in the dairy sector is Cargills Ceylon that has the experience of more than 100 years in business. Product range of Cargills includes ice cream and dairy manufacturing with brands of Cargills Magic, and recently acquired Kotmale holdings products. Cargills accounts for 50,000 to 60,000 litres of milk a day for various productions. The next main player is CIC group which also accounts for the dairy sector with a wide range of products.

As per The World Health Organization statistics, per capita milk consumption per day should be 200ml. However the milk consumption in Sri Lanka is just more than 50% of what is required. Annual milk production of the country over last 10 years is given in table 1 below.

Table 1: Annual Milk Production

Year	Milk Production (No. of Litters)
2007	196,623,360
2007	202,009,200
2008	208,093,090
2009	233,316,240
2010	247,554,000
2011	258,303,600
2012	299,250,000
2013	329,169,600
2014	333,903,600
2015	374,443,200

Among different dairy products, yoghurt can be considered as a common dairy product in Sri Lanka and it accounts for more than 80% of the total dairy market. Yoghurt production process is relatively simple but technology can significantly improve the effectiveness of production and the maintenance of high quality.

The market growth for dairy is significant in the recent past and it shows that there is an increasing trend. Annual consumption is roughly estimated to be more than 15,000 metric ton. Yoghurt is considered to be a product that almost everyone can eat without having problems compared to other dairy products. Only limited variations of yoghurt can be seen in the market with different flavours such as vanilla yogurt, strawberry yogurt, treacle yogurt, fresh fruit yogurt, chocolate, and jelly yogurt. Further, set yoghurt has a high demand in Sri Lanka compared to stirred ones. It is a challenging task for manufacturers to adjust the taste, thickness and sweetness of yoghurt in line with changing nature of customer taste, culture and behaviour.

Yoghurt culturing process breaks down the milk sugar lactose into glucose and galactose. These sugar contents are believed to be easily absorbed by the human digestion system. On the other hand, manufacturers are concerned about the cost of production and maintenance of hygiene as dairy products are highly sensitive to human consumption.

Ultra-High Temperature processing (UHT), is a general solution in dairy industry but it is likely to kill nutrients as well in addition to germs because of high temperature generated. UHT processing sterilizes products by heating it above 135 C⁰ to kill spores in milk for 1 to 2 seconds. The heat used during the UHT process can cause browning and change in taste and smell of products as well. There is an argument against UHT as it is believed to have a great risk to health of employees as the high heat generated by machines. On the other hand UHT is considered to be environment friendly as it can be kept dairy products without refrigerators which generate greenhouse gas. An alternative process is High Temperature Short Time (HTST) pasteurization, in which, milk is heated at 72 C⁰ for at least 15 seconds. However, the shelf life of HTST without refrigerator is just for about two weeks from processing time whereas UHT products have a typical unrefrigerated shelf life of six to nine months.

Health Dairy's Presence

Mr. Raman is in a yoghurt and crud manufacturing business as a small player with the use of modern technology by assuring high quality of products and eyeing to have a strategic business partnership with a foreign investor. He has already initiated discussions with a potential investor and the foreign investor has already shown his interest of bringing the investment. Mr. Raman has looked for all the required information and regularities which are required to be met with. He managed to meet one of the Ministers in the government and subsequently has been referred to the Ministries concerned in economic development and foreign investments. Mr. Raman has succeeded to meet even the Prime Minister and the president of the country and was able to convince them about the economic importance of his proposal. He came to know that dairy industry is one of the government strategic priorities with the objective of making Sri Lanka self-sufficient in milk products by 2020. With several rounds of discussions with government authorities and the investor, now Mr. Raman has been given the BOI approval for this new investment. Initial investment of the business will be of USD 100 million and they are going to name the company as Healthy Dairy (HD) and locate the factory in a government land in upcountry on 99 years lease term. HD intends to expand its business throughout the country in different steps and then to the regional markets subsequently in the long run.

HD is planning to strategize with a view to be the leader in producing high quality dairy products while feeding the nation with required nutrients in a sustainable manner. HD is contemplating a product range, production processes, Product positioning, distribution modes, promotion and sales teams, Pricing, Competition, information systems, technology and other environmental aspects in line with the new investment proposal.

Distribution Strategies

Two options are being considered with regard to distribution of products. One is to fully outsource the distribution function to a third party. Accordingly, the distributor is responsible for removing products immediately after the production finishes and all the logistic arrangements should be made by them. Therefore, HD is not required to make any investment for storing finished goods. However, distribution and marketing plans are provided to the distributor from time to time by the marketing division of HD based on its marketing and promotion strategies.

The other option is to establish company owned main distribution centers which coordinate the distribution of products to wholesalers and retailers through company owned distribution network and with some third party distributors who will be selected by assessing the need. Irrespective of the mode of distribution, the company plans to have strategic alliances with existing supermarkets on the belief that, consumers buying behaviour would be more concentrated on shopping malls and convenience shops in future. Current trend shows that Supermarkets are increasingly gaining the popularity especially in urban and semi-urban areas and sooner or later it is likely that it will spread to rural areas as well. HD plans to buy 300 delivery vans in case if this option of distribution is adopted.

One of the major concerns with regard to supermarkets is that, it is required to give relatively high credit time for collections and likelihood of complying with more terms and conditions stipulated by them. As of now, 75 days credit period is requested by supermarkets to settle dues whereas 30 to 45 days are offered to wholesale distributors. In case of direct distribution to retailers, cash is collected on the same day of distribution. However, direct distribution to retailers by company owned vehicles is expected to be around 5% of the total sales volume.

Relationship with Retailers

Retailers are not motivated to showcase products unless they are given relatively high mark ups. Initial marketing surveys have found that high sales commissions to retailers are offered by other existing dairy manufacturers. There is a big competition among players in offering high sales commissions to retailers.

Pricing

Products like yoghurt and other dairy items do not have much flexibility in setting prices as the market is operated by players in an established oligopolistic nature and therefore, the market decides the price. Attempts to change the price alone by one manufacturer would not be successful. However, the quality which is, specially perceived in taste is a major determinant of market demand of dairy products and therefore, product differentiation can be a strategy to face this situation. Therefore, there is a room left for manufacturers to have leverage with respect to pricing if the products can be assured with high quality and differentiated from other products despite the fact that all the producers are price takers.

Product Development and Buying Behaviour of Customers

Only a limited range of dairy products is available in the market which is dominated by yoghurt and powdered milk. Drinking fresh milk packets, fresh cream, cheese (limited varieties), drinking yoghurt, butter and curd are the other products. Continuous Research is needed in order to assess the changing customer behavior and market condition and the changes in the economy in order to succeed in a competitive dairy market. Culture, values, beliefs and attitudes, lifestyle, income, education levels mainly influence buying behavior of customers to a greater extent. Mr. Raman is in the belief that natural taste and healthiness should be on top in the marketing campaign apart from other things to be considered in strategizing.

Unlike in the past, now people are said to be health conscious but how best that the concern is reflected in the buying decision is yet to be researched. Non-fat and low fat dairy products have not been embraced by customers in the market at present despite the fact that high health concern is said to have been depicted. The taste non-fat and low fat dairy products may have been the main cause for this low demand. Manufacturers introduced low fat and non-fat yoghurt from time to time but they were not successful and as a result, non-fat yoghurts are very rarely available in the market. HD thought of introducing a full range of yoghurts including non-fat, low fat and a wide range of flavoured products with natural fruits and jelly.

Mr. Raman has been capturing data for customer preferences, behavioural patterns and changes of demographics and maintaining them in a database. This data base is regularly monitored and updated with required changes on continuous basis through market surveys and other findings.

HD intends to introduce all possible ranges of products including yoghurt with Vanilla, Strawberry, Chocolate, Treacle, Fruit Jelly and Fresh Fruit Yoghurts, Curd, Pasteurized Milk, Sterilized Milk, UHT Milk, Flavoured Milk, Fruit Drink Bottles, Drinking Yoghurt and ice Cream. Main yoghurt range expected is given in table 2 below.

Table 2: A summary of Variable Cost of Selected Products

Name	Variable Cost of Production	Content Grams/ml
Vanilla Flavoured Yoghurt	40	500 g
Vanilla Flavoured Yoghurt	12	80 g
Strawberry Flavoured Yoghurt	13	80 g
Fresh Fruit Yoghurt	25	160 g
Fruit Jelly Yoghurt	15	80 g
Choco Flavoured Yoghurt	12	80 g
Drinking Yoghurt	30	220 ml

Competition

The possibilities for competitors to enter into any market segment are relatively easy as dairy products can be accepted by any part of the country by almost of all the customer groups. Whether to focus on selected geographical areas or to cover up the entire country and to consider only selected products or to introduce all possible varieties of products as long as they are cost effective depends on corporate and market strategies. At present, most of the big players have penetrated in to the urban areas with their products and only few have gone to rural areas.

Social Entrepreneurship

Mr. Raman and the new investor are keen on introducing social entrepreneurs as a part of corporate strategies to make a difference in the market with a new innovative approach as the dairy sector is very much connected with the livelihood of people. Hence, HD suggests introducing farming families as a major stakeholder of the company. Their idea is to bring a proposal to the government to introduce social entrepreneurship with dairy farmers. Government is proposed to provide both technical and financial support together with the company to make farming families to own high quality cows and reasonable extent of land for grass and other cultivation as well. All the milk production is purchased by HD at an agreed price which is not less than the current market price. At the same time technical supports and guidance through a proper education are also given with a view to increase the productivity. Accordingly, farmers are expected to be empowered with new technology and knowledge on productivity, hygiene, storage systems and transportation of milk. A separate market is also created for farmers to improve their other agricultural crops and products as well in addition to main milk production. A separate unit is established to cater for other social needs of farming families. This plan includes to convert farmers to well-educated entrepreneurs over time.

The plan further suggests creating a national milk grid by linking milk producing families. It is suggested that the grid should start region wise first and then expand throughout the country in the long run. This grid will help farmers to have shared knowledge and learning while supplying milk products to HD in an efficient manner without middlemen.

One of the biggest challenges of this plan is to find high quality cows for farmers. The effectiveness of milk production mainly depends on the cow species and feed. Mr. Raman believes that subsequent breeding and heeding can be easily done with the help of government if the basic foundation is made. Mr. Ramna further suggests to explore the possibilities of sharing knowledge with social entrepreneurs in the Dairy sector in countries like India and Philippines where the concept is well practiced.

Investment

A Rough estimate of the Initial Investment for long term assets required by HD is given in table 3 below.

Table 3: Initial Investment Forecast

Investment	Rs. Million	Expected Useful Life (Years)
Land (Lease)	300	99
Buildings	1,000	25
Machines and Refrigerators	5,000	12
Furniture	100	10
Office Equipment	50	10
Computer equipment	150	5
Motor Vehicles	2,000	10
Intangible assets	400	4
Research and Development	200	-
TOTAL	9,200	

Modern Retailed Outlets

In addition, HD plans to have retail outlets in the state of art of technology with the objective of creating a brand image and increasing the market share of the company in future. Accordingly, all the product brands of the company are made available to customers with facilities of drinking hot milk, healthy fresh fruit juices, and healthy snacks mainly with breakfast. Outlets are established in key towns and economically influential places. The idea of going for a franchise to start outlets when it grows is also there in the pipeline of this new investment proposal.

Despite the fact that the Government has set down its targets to reach self-sufficiency in the dairy industry of Sri Lanka by the year 2020, there are many challenges that still lie ahead. From increasing production with the development of livestock to storage at the retail and consumer level, all aspects of the industry require developments. One of the key shortcomings seen is the lack of storage facilities at the retail and consumer level to preserve the nutritive and qualitative value of milk. There remains the requirement for fresh milk to elevate its status as a competitive product against imported milk products. The Government at present is making efforts to create a level playing field so that local products receive due place in the market.

CMA INTEGRATIVE CASE STUDY – (ICS - 501)

May 2017 Examination - Marking Grid

	Marks	A	B	C	D	E
1. Management Accounting Sound technical knowledge in Management Accounting	20	High level of Management Accounting awareness relating to world examples 17-20	Good Management Accounting awareness relating to case study examples 11-16	Some level of Management Accounting awareness relating to few case study examples 10-14	Low level Management Accounting awareness 5-9	Lack of Management Accounting awareness 0-4
2. Application of theories Diverse knowledge clearly applied in an analytical and practical manner in solving the problems in the case study.	20	High level of application of theory in an analytical manner in solving problems in the case study 17-20	Good level of application of theory in an analytical manner solving problems in the case study. 11-16	Some level of application of theory in an analytical manner solving problems in the case study. 10-14	Low level of application of theory in solving problems in the case study 5-9	Lack of application of theory in solving problems 0-4
3. Identifying key issues Issues to be identified and prioritized in a logical manner with a clear rationale.	10	High level of recognition of key issues and these being prioritized logically with a clear rationale. 8-10	Good level of recognition of issues and these being prioritized logically 5-7	Some level of recognition of issues and these being prioritized 3-4	Low level of recognition of issues 1-2	Lack of recognition of issues 0
4. Decision making skills Ability to recognize and present appropriate alternate solutions and make effective judgment in a logical & rational manner.	20	High level of ability to recognize and present appropriate alternate solutions and make effective judgment in a logical and rational manner 17-20	Good level of ability to recognize and present alternate solutions and make effective judgment in a logical and rational manner. 11-16	Some level of ability to recognize and present alternate solutions in a logical and rational manner 10-14	Low level of ability to recognize alternate solutions 5-9	Lack of ability to recognize alternate solutions 0-4
5. Logical arguments Ability to communicate effectively with realistic recommendations in a concise and logical manner.	20	High level of ability to communicate effectively with realistic recommendations in a concise and logical manner 17-20	Good level of ability to communicate effectively with realistic recommendations in a concise manner 11-16	Some level of ability to communicate effectively with realistic recommendations in a concise manner 10-14	Low level of ability to communicate effectively 5-9	Lack of ability to communicate effectively 0-4
6. Communication skills Style and synthesis in evaluation of a good report to higher management.	10	High level of combining ideas and experiences in a professional manner using relevant appendixes 8-10	Good style in writing a Management Report encompassing ideas and recommendations with some appendixes 5-7	Some style in writing a Management Report encompassing ideas and recommendations 3-4	Poor style in writing a Management Report 1-2	Lack of knowledge in writing a Management Report 0
TOTAL	100					