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Serial No.....

Institute of Certified Management Accountants of Sri Lanka

Professional II Stage September 2009 Examination

Examination Date : 27th September 2009
Examination Time: 9.30 a. m.- 12.30 p.m.

Number of Pages : 18
Number of Questions: 01

Instructions to candidates:

1. Time allowed is **three (3) hours**.
2. Attached to the question are **Scenario I** given in advance and **Scenario II**
3. Answers should be entirely in **English language**.

<u>Subject</u>	<u>Subject Code</u>
Case Study	(CaS / 804)

Question (100 Marks)

Drops

You have been appointed as the Management Consultant to the Group Board of DROPS.

Prepare a report that prioritises analyses and evaluates the key issues facing DROPS and makes appropriate recommendations.



Scenario I

Water

Water makes about 60% of the weight of the human body and without it a human would die within a few days. The percentage of water in the human brain is 75%, in blood is 82% and in the lungs, 90%. A mere 2% drop in our body's water supply can trigger signs of dehydration; fuzzy short-term memory, trouble with basic math, and difficulty focusing on smaller print, such as a computer screen.

The body cannot work without water just as a car cannot run without gas and oil. In fact, all the cell and organ functions in our body depend on water for their functioning:

- Water serves as a lubricant
- Water forms the base for saliva
- Water forms the fluids that surround the joints.
- Water regulates the body temperature, as cooling and heating is distributed through perspiration
- Water helps to alleviate constipation by moving food through the intestinal tract and thereby eliminates waste
- Water regulates metabolism

In addition to the daily maintenance of our bodies, water also plays a key role in the prevention of disease. Drinking eight glasses of water daily can decrease the risk of colon cancer by 45%, bladder cancer by 50% and can even potentially reduce the risk of breast cancer.

Since water is such an important component to our physiology, it would make sense that the quality of water should be just as important as the quantity. Drinking water should be clean and free of contaminants to ensure proper health and wellness.

According to research articles and news, most tap and well water today are not safe for drinking due to heavy industrial and environmental pollution. We have reached a point where all sources of our drinking water, including municipal water systems, wells, lakes, rivers and even glaciers contain some level of contamination. Contaminants range from naturally occurring minerals to man-made chemicals. While many contaminants are found at levels insufficient to cause immediate discomfort or sickness, it is proven that even low-level exposure to many common contaminants will, over time, cause severe illnesses such as liver damage, cancer and other serious ailments. Even the chemicals commonly used to treat municipal water supplies such as chlorine and fluoride are toxic and are known to have significant adverse effects on the human body.

The fact is that bottled mineral water is not always filtered and not necessarily cleaner or safer than most tap water. Even bottled water contains many contaminants.

About one-thirds of water tested contains levels of contamination including synthetic organic chemicals, bacteria, and arsenic. There are 35,000 pesticides containing 600 chemical compounds, yet municipal water systems are only required to test for six. Many of these chemicals are known to cause birth defects, nerve damage, sterility and cancer. More than 700 organic chemicals have been identified in drinking water and some of them are suspect cancer causing agents. Public water systems do not test for carcinogens and other dangerous chemicals that are usually present in water. Digging deeper into this "mineral issue", one finds that this small, about 2-3% amount of minerals are basically indigestible by the body. Unless specific amino acids or other bodily "catalysts" are present, bodily absorption will happen. This leaves the lime and salts to float throughout the body, clogging arteries, kidneys, joints and other digestive organs.

Contaminants in water may cause a wide range of illnesses:

- Gastrointestinal illnesses such as; diarrhea, vomiting, cramps
- Increased risk of cancer
- Anemia
- Liver and kidney damage
- Central nervous system problems
- Skin damage or problems with circulatory systems
- Thyroid problems
- Bone disease (pain and tenderness of the bones)
- Mottled teeth in children
- Infants and children - Delays in physical or mental development; children could show slight deficits in attention span and learning abilities

Contaminated water is the main cause of many critical illnesses, and it is shocking to note that tap and bottled water available are not adequately purified to prevent disease and affliction.

A good water filtration system is the way to proactively monitor and ensure the quality and safety of drinking water. **Reverse Osmosis** water purification systems can remove 90-99% of all contaminants present in city and well water to deliver healthy drinking water.

Reverse-Osmosis

The concept of Reverse Osmosis (RO) has been around for many years. In nature, osmosis is the process by which plants absorb moisture from the soil, purifying this moisture as it passes through the skin of the plant. During this absorption process, a measurable pressure exists across the skin of the plant called the osmotic pressure. When this process is reversed and pressure is applied to one side of a synthetic (man-made) membrane, we have the reverse of osmosis or Reverse Osmosis.

The man-made RO membrane, with its dense material makeup, will allow certain very small particles to pass through it. Larger, heavier molecules cannot pass through the membrane and are left behind and flushed away. If pressure applied to the input tap water is properly maintained, the osmotic pressure of the membrane is overcome and small portions of purified water begin to "squeeze" through the membrane.

In the water treatment industry there is a chart detailing types of contaminants, their sizes and which ones pass through the various types of membranes. Membrane pore sizes can vary from 0.1 to 5,000 nanometers (nm) depending on the filter type; "Particle Filtration" removes particles of 1,000 nm or larger. Microfiltration removes particles of 50 nm or larger. "Ultrafiltration" removes particles of approximately 3 nm or larger. "Nanofiltration" removes particles of 1 nm or larger. RO is in the final category of membrane filtration, "Hyperfiltration" and removes particles smaller than 0.1 nm.

There are many companies which sell RO systems that can be used in households. They are easy to operate and can be fixed to purify tap water. These systems reduce the cost of purchasing bottled water and provide people with water of a better quality.

Rain water can be purified with RO water processors and used for landscape irrigation and industrial cooling as a solution to the problem of global water shortage. In industry, reverse osmosis removes minerals from boiler water at power plants. The water is boiled and condensed repeatedly and must be as pure as possible so that it does not leave deposits on the machinery or cause corrosion. RO is also used to clean effluent and brackish groundwater.

RO is also a more economical operation for concentrating food liquids such as fruit juices, than the conventional heat-treatment processes used for this purpose.

Because of its comparatively lower mineral content, RO water, displacing the mineral-heavy reclamation water (municipal water), is often used in car washes during the final vehicle rinse to prevent water spotting on the vehicle. RO water also enables car wash operators to reduce demands on vehicle drying equipment such as air blowers.

Most water companies use polyethylene terephthalate (PET) plastics to bottle their products. The manufacturing process of PET bottles requires a combination of natural gas and petroleum. Hence, Bottled Water Addiction fuels high Gas Prices. Another issue is the transportation costs associated with bottled water; water is heavy and a lot of fuel is used to transport millions of tons of drinking water every day. When the time comes to recycle these plastic bottles, even more oil is needed as recycling plants require large amounts of fuel and clean water to operate. Thus, even the recycling of plastic bottles becomes a major depletion of the earth's precious natural resources.

DROPS Limited

DROPS Limited is one of the leading manufacturers of RO Systems and Water Treatment equipment in the world. Their headquarters are located in a European country and the company has manufacturing facilities in 15 countries in all continents. They started their operations in 1993 with 20 employees and today have over 5000 employees in 30 countries.

They are reputed for their high quality services and the advanced technology used RO by them; RO systems from DROPS delivers high performance at the lowest life-cycle costs, where the company has high-quality components designed specifically for water purification.

Further, they supply Sea Water Desalination systems; membrane elements; filters; pumps; instrumentation; nanofiltration, carbon filtration, ultrafiltration equipment and other components. DROPS is also unique in their Single Point Accountability for the design and operation of these units. With more than 15 years of spiral membrane development and manufacturing expertise, DROPS has the ability to tailor an economical solution that creates value for every business while reducing their operating costs.

The company is well experienced to provide consistent water quality and durability needed for the Asian market and provides total support for design, implementation, maintenance and upgrading of RO systems.

Board of Directors

Dr. Jack David is the founder and Chairman of the company. He has over 25 years of experience in RO and water treatment technologies and has a PhD from a leading American University in water management. He is a reputed global personality and makes presentations at many international seminars and talk shows on water purification.

Ranil De Silva, aged 47, is the Finance Director of the Group and operates from their Regional Office in Singapore. He counts over 20 years of experience in Accounting and Finance and has successfully implemented many cost reduction schemes.

Weng Tiong is the Group Operations Director and is based at the DROPS headquarters in Europe. He has been with DROPS since its inception and is a close friend of Jack David. He also heads the research and development (R&D) division of the Group and is responsible for new innovations. He has a policy of introducing one new innovation every quarter and has been very successful with it in the past.

Weng proposed to the board to rename its R&D department to '*Dreams Department*' and to re-designate him as the Chief Dreaming Officer. He further recommended separate teams within the R&D department where one would be responsible for generating new ideas ('dreams'), another would undertake the responsibility for evaluating and commercializing the ideas generated and the third team would focus on implementation of the ideas. The inspiration behind Weng's proposal lies in his feeling that the survival of the company is in its innovation and that as a result, DROPS should double its R&D investment during the next 3 years. He also has a proposal to reward all innovations irrespective of its success, to motivate his staff to try radically new ideas. He proposes to incentivize the 'excellent failures' as well as he strongly feels that failures are 'badges of success' for his team.

Susan Lloyd is the Group Human Resources Director and has over 30 years of experience in Human Resources (HR). She joined DROPS last year and was previously the head of HR for a leading international electronics company based in USA. DROPS has powerful trade unions in almost all the countries in facilities which it maintains production facilities. Most of the collective agreements signed with the trade unions will expire by the end of this year.

John William is the CEO of the company and was the MD of JOHNRO, a specialized RO company based in Netherlands which was acquired by DROPS in 2007. After acquisition of JOHNRO, John accepted the offer by the DROPS Board of Directors to be CEO of the Group. Prior to appointing John as CEO, Jack was both the Chairman and the CEO. The last two years have seen many disputes between John and the Chairman on new product development and global expansion strategies.

There are 4 other non-executive directors in the Board.

Asia

John's ideas of cheaper RO plants to suit the Asian market was rejected by Jack. DROPS target of 99% purity makes the RO plant very expensive to the Asian market. John proposes a 90% purity based RO plant with a price 40% lower than the current standard pricing. John is of the view that future growth lies in Asia and if DROPS fails to 'compromise' on its quality standards it may lose the valuable opportunities available in that region. The demand for RO and water treatment plants in Asia is higher than the total current industry sales in Europe.

Although the pricing would be substantially lower in Asia than the European and American markets, the EBITDA % in Asia is expected to be 20% higher than Western markets.

Two of DROPS' largest competitors based in Germany are aggressively working on strategies for entering the Chinese and Indian markets. One of them has recently appointed a Regional Director for the Indo-China region. Currently there are a few large multinational water treatment plant manufacturers in India and China who have established joint ventures with local companies. In most of these joint ventures, the local shareholders maintain controlling interest and have a team of specialized engineers in major cities. Some of the key components are imported from Europe and the plant is assembled in Asia, where the labour cost is cheaper. These European-Asian joint venture companies have recently received several export orders from other Asian countries and Africa. In view of export opportunities, the Governments of these Asian countries have permitted these joint venture companies to import components on a duty free basis.

These Indian and Chinese Engineers are highly skilled and cheaper than European engineers. Hence, European companies are also looking at the possibility of posting some of these Engineers to work on their European projects on a contract basis for two to three years, in an attempt to reduce staff costs and motivate their Asian staff through the opportunity of foreign placements.

DROPS has a plant in Singapore operating at 20% of its installed capacity. It caters to a few selected multinationals and its pricing is comparatively much higher than other competitors in Asia. DROPS' Asian headquarters is in Singapore and controls all operations in the Asia Pacific region.

Household segment

DROPS mostly focused on the Industrial sector in the past. They started catering to the household sector in 2005 and launched DROPS' Portable RO systems which could be used at homes. Portable RO water processors can be used by people who live in rural areas without clean water, away from city water pipes, by enabling them to filter river or ocean water themselves as the device is easy to use. Some travelers on long boating, fishing or island camping trips, or those in countries where the local water supply is polluted or substandard, use RO water processors coupled with one or more ultraviolet sterilizers, to purify water.

As DROPS is facing intense competition from stream of distillation companies in this segment, they have organized a series of seminars and conferences in many regions educating the public on the problems faced in drinking tap and bottled water and the benefits of the RO system, such as benefits to the country by saving energy in making of PET bottles and its transportation. This campaign has been well received by consumers and has seen an increased awareness of RO amongst DROPS' target audience.

DROPS currently manufactures all its portable RO plants ment for households solely from its German manufacturing plant and is planning to decentralize its production in other European countries during the next 3 years. Currently there are delays in delivering the RO systems, resulting in a few customers complaining about the delay and canceling contracts. The manufacturing of portable RO plants is a high capital intensive project with high operational gearing. Furthermore, this segment needs a dedicated and skilled team in all regions for customer support.

In a proposal to the Board, John suggested that the portable RO product be offered in three different packages with different price points and different quality levels, in order to penetrate into all segments of the market.

Marketing

The Marketing Manager for the European region has requested a \$ 500 Million budget for the next three years for extensive TV advertising and promotional activities and for sponsorship of many events in Europe. They plan to have bill boards in and around all major hospitals in Europe and sponsor medical conferences. This budget also includes a special discount to be given to customers for introducing others to the brand and a plan to appoint a leading European Olympic medalist as the Brand ambassador for its products. The proposed advertising campaign is expected to increase overall demand by 80%. However, if DROPS is not in a position to meet the increased demand, they may leave opportunities open for other new entrants to exploit this market. In effect, the Marketing Manager seeks to position 'DROPS water' as the generic name for RO water.

The marketing budget requested by the marketing manager may be a viable strategy only if all segments are covered with suitable products. With the current global recession, most consumers are moving towards the more 'economically friendly' products and services.

Litigation

The *Bottle Water Companies Association* of a European country has lodged a complaint with the Fair Trade Commission against the recent DROPS awareness campaign. They allege that DROPS' public statements of bottled water being unsafe for consumption would negatively affect the image of their brands and lead to the collapse of the industry. The Fair Trade Commission has called for written submission of a response from DROPS regarding the complaint lodged by the *Bottle Water Companies Association*.

Weng Tiong has suggested contacting other RO companies and forming a European RO Companies Association where the case could be defended through this association. However John feels that it might take at least 6 months to form such an association.

Restructuring

The HR Director is of the view that DROPS is currently over staffed and productivity levels are much lower than other RO and water treatment companies. She has proposed to outsource all non-core activities for a fixed fee and retrench excess staff by awarding them a fair compensation. Non-core activities would include unloading of raw and packing materials, loading of the finished product, cleaning and maintenance at the factory etc.

Submission of this proposal by the HRD has leaked to workers and the CEO has received a letter from a DROPS Trade Union in a European country requesting for a meeting on this issue. There are rumors of a strike planned at this plant if the workers do not receive a satisfactory response at the meeting. This move created a labour unrest in other factories as well: Factory management has noticed a 'go-slow' working approach in workers during the past two weeks.

The CEO is concerned as to whether DROPS has the expertise and skills required to manage and control the sub-contractors.

Recycling Waste Water

The DROPS Research and Development department has finalized a proposal to launch a new technology that will recycle waste water of industries using the reverse osmosis technology. The recycled water can be used for non-core industry operations like gardening, cleaning, usage in toilets etc. This would reduce industry water consumption by 20% and save water. This project would be entitled for duty free import in many countries. As per DROPS' lab reports, the RO treated waste water is good for drinking. However they are initially planning to recommend it for only non-core activities.

For industries which use a significant quantity of water for their production such as soft drinks and where water supply is limited, this technology could prove to be a good method of reducing water usage. Furthermore, as industries in many Asian countries face serious problems in discharging effluent material, recycling of waste water would reduce the effluent discharge load.

A RO unit could be priced at \$ 1,500,000 for a capacity of 500 M3 where variable cost would amount to 60% of the whole amount. Incremental fixed costs to DROPS for manufacturing these units would be \$ 100 Million per annum with a 20% plus or minus variation. This project would need an investment of \$1,000 Million and has a 30% probability that the project would give a negative net present value. DROPS has a policy of measuring the viability of all new projects based on a 10 year period.

Credit

Interest rates in few Asian countries have increased significantly during the last two years and some customers from these nations have requested for an additional 120 days credit. They are willing to pay an additional cost of 2% over the agreed price. They further request amendment of the terms of payment in the current Letter of Credit Usance to Documents against Acceptance (DA) in order to reduce transaction costs.

Change of Currency

All European sales are currently invoiced in Euro (EUR). The Sales Department has requested the Finance department to advice on whether they should continue to invoice in EUR or shift to USD or other more 'locality specific' currencies.

Stock

DROPS always maintains a stock of 150 days of its outsourced components. This has increased its working capital. However the stock level of these components have increased by over 50% during the last two years and factory managers are under pressure from management to reduce their stock levels. High stock levels have increased insurance costs and wastage in the stores and this in turn has raised the FIFO based issue of components in factories, which dictate limitations on availability of space, for such purposes.

Supplier Credit

In the recent annual Purchasing Conference, the Head of Group Procurement announced that the credit obtained from most suppliers have increased from 30 to 40 days. However the CEO was confused to note a creditor's turnover ratio translate into a figure as low as 7 days in its monthly management accounts and requested for immediate reconciliation of these figures.

Internal Audit

The Group Internal Auditor (GIA) reports direct to the Chairman of the Board and to the Audit Committee. He feels that the current internal audit structure is not effective as the internal auditors of each subsidiary company belonging to the group, reports first to their respective CEO's, who in turn forwards the internal audit reports to the GIA. Internal auditors of subsidiaries are influenced and biased by the management of the subsidiaries. GIA thus proposed to the Board to appoint an international audit firm as its global internal audit partner and request them to undertake the internal audit independently and forward their reports direct to the GIA.

Furthermore, the operating companies in a few countries are experiencing high staff turnover in the internal audit areas and are also experiencing difficulties in recruiting experienced internal audit staff in some countries as internal auditors tend to shift towards jobs in accounting in view of higher career prospects.

In addition, the GIA received a complaint from one of the internal auditors that, when reporting adverse findings, they run the risk of compromising the relationship they maintain with the rest of the staff and some local staff go to the extent of lodging false complaints against the Internal Auditors in question. Internal Auditors in most subsidiaries are isolated from the rest of the staff and therefore don't really enjoy their job. Few auditors who maintain good relationships with their respective companies soften their adverse findings in favour of the employees.

Outsourcing the Internal Audit functions would increase the internal audit costs by 50%. The CEOs of many subsidiary companies have objected to this change and expressed their concern on the seemingly 'lack of trust' placed in them by the Group's Senior Management.

Waterland

Waterland is a country in Africa where DROPS has a 70% owned subsidiary company. This subsidiary's sales have reduced by 20% per annum for the last 3 years and the Group CEO has informed this subsidiary that if they are not in a position to retain their sales, he would make arrangements for DROPS to exit from this investment.

Last month, the CEO of the subsidiary company informed the Group's Board that the company had won a large contract with a state institution for sea water desalination which would boost sales growth by 30% for the next three years.

Today the Group CEO received an anonymous call from one of the employees working for a competing business in Waterland, who informed that the CEO of the Waterland subsidiary won the lucrative contract with the state institution by offering a bribe of \$ 100,000 to a powerful local politician.

If this contract is not signed, Waterland will blacklist DROPS from future projects in the country. Further, the politician who reportedly accepted the bribe is an extremely influential official controlling two powerful ministries.

Executive Remuneration

The Chairman of the Remuneration Committee submitted a proposal to the Board that the Senior Management of the Group and subsidiaries are underpaid compared to other companies. He thus proposed to implement a Share option scheme to them where share options would be issued at \$ 40.

Jack is keen in understanding other alternative ways of remunerating senior management prior to discussing share options. He has emailed the Chairman of the remuneration committee requesting an explanation as to why ESOPs should be priced higher than the current share price.

DROPS's shares are listed in a European Stock Exchange and currently traded at \$ 30.

M Land

DROPS has won a large contract from the Government of M Land to recycle its waste water using RO in order to avoid discharging its waste water. This is a 5 year continuous project where DROPS must undertake the installation and operation of the RO treatment system, where the Government would pay DROPS based on the quantity of water treated by them provided they are within the set water treatment quality norms.

Divisional performance appraisal

DROPS has a policy of measuring the performance of all of its subsidiaries under four Key Performance Indicators (KPIs):

1. Sales growth %
2. Profit Before Interest and Tax (PBIT)
3. Market share
4. Return on Investment (ROI)

Team working

At the last board meeting, the Human Resource Director raised the issue of a lack of ‘team working’ in the company. She claims to have observed many instances of conflict between the employees of newly acquired companies and old DROPS company employees. This has affected the integration of the acquired companies and resulted in staff resignation, staff disputes and frequent intervention of the Group Human Resource department.

James Beverages

James Beverages, one of DROPS’ key customers in the USA sent a letter to DROPS Chairman expressing their displeasure over the service received from DROPS and communicating their decision to stopping purchase of DROPS products in all of the 20 countries in which they operate. Their main complaint is that DROPS failed to provide the agreed on output levels where the current running capacity of the RO plant is 25% lower than the agreed levels. These output levels are seriously affecting their production capacity. Despite several email reminders and many visits by the DROPS Engineers, the matter has continued to be unresolved for more than six months.

As per the DROPS Engineers’ reports, who handled this project, the quality of water currently received by James Beverages is very low and is different from the sample of water sent to DROPS at the time of proposal submission. Further, the region has experienced heavy rains during the last three months which in turn has affected the quality of the input water negatively.

Appendices

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Appendix 1:

DROPS Group

Profit and Loss Account for the financial year ended 31st March 2009
(in \$ Millions)

	2007/2008	2008/2009
Sales Revenue	18,500	19,425
Less: Cost of Sales	<u>(8,325)</u>	<u>(9,129)</u>
Contribution	10,175	10,296
Less: Fixed Costs	<u>(8,000)</u>	<u>(8,800)</u>
Profit before interest & tax	2,175	1,496
Interest	<u>(425)</u>	<u>(623)</u>
Profit Before Tax	1,750	873
Tax	<u>(577)</u>	<u>(288)</u>
Profit After Tax	<u>1,173</u>	<u>585</u>

Statement of Changes in Reserves

	Share Premium	Retained Earnings	Total
	\$ Millions	\$ Millions	\$ Millions
Balance as at 31 st March 2008	2,000	11,650	13,650
Profit for the period		585	585
Dividends paid		500	500
Balance as at 31st March 2009	2,000	11,735	13,735

Appendix 2:

**DROPS Group
Balance sheet as at 31st March 2009**

(in \$ Millions)

	31st March 2008		31st March 2009	
Fixed Assets		24,000		28,500
Current Assets		15,000		15,765
Total Assets		39,000		44,265
Current Liabilities		4,850		5,500
Share capital & Reserves				
Share capital	10,000		10,000	
Share premium	2,000		2,000	
Retained earnings	10,500	22,500	11,735	23,735
Long term Liabilities		11,650		15,030
Total Equity & Liabilities		39,000		44,265

End of Scenario I

Scenario II – Continuation of Scenario I

Candidates are advised to read through the additional information provided below before attempting the question

Bottled RO water

Weng Tiong has submitted a detailed proposal to the Board to launch bottled mineral water that has been treated with Reverse Osmosis. With this strategy, DROPS would be in direct competition with bottled water companies that are predominantly owned by many powerful global brands.

RO treated water would have 95% purity and be of a higher quality than normal bottled water. The treated bottled water would thus be priced 20% higher than other bottled waters and sold in polyethylene terephthalate (PET) bottles in 3 different sizes. This would go under the corporate brand name of 'DROPS' and would be publicized via the marketing campaign proposed by the marketing manager.

This project will be initially implemented in 5 plants in Europe and, depending on its initial success, will consequently be launched in other markets as well. The production of PET bottles will be outsourced to a specialized PET bottles manufacturer who will operate a mini PET bottle manufacturing unit within the boundaries of DROPS' factory.

DROPS has no prior experience in handling the distribution of such products. Weng has therefore proposed four alternatives for distribution of these products:

Firstly, it could appoint a FMCG company like Nestle to sell the bottles under their powerful distribution network. These FMCG companies could achieve significant economies of scale in distribution and with the range of products supplied by them to retailers, they possess the power to successfully push DROPS' RO bottled water onto retailers. Furthermore, some FMCG beverage companies have provided coolers to retail outlets, thus selling DROPS' bottled water through one of these FMCG giants would enable DROPS' RO products to get into the coolers and reduce the investment required by DROPS for such coolers.

Secondly, the distribution could be outsourced to a transport/logistics company where products could be sold by a sales staff team employed by DROPS through the transport facilities provided by the outsourced supplier. Goods would be delivered directly from the manufacturing base to the retailers.

Thirdly, distributors could be appointed for each geographical area where all distributors would be expected to provide a bank guarantee and go through a rigorous screening process to assess suitability.

Fourthly, DROPS can establish their own distribution outlets in each region and sell the products through their own stores. Each distribution outlet would have an outlet manager and a team of sales managers employed by DROPS.

Joint promotion

The Corporate Social Responsibility Manager of the Group has proposed a joint promotional campaign together with the World Health Organization (WHO) for an educational program to increase the drinking of water among people where the campaign would also focus on communicating the present quality issues in water. If WHO are agreeable, they would accept DROPS as the principal sponsor of this project.

WHO would appoint a team of volunteers who would organize public events, talk to people about the cause directly and release TV, radio and press advertisements. However the terms and conditions of doing a project with WHO would prohibit DROPS from promoting its brands; It can only state that DROPS is the principal sponsor of this project. This project would cost \$ 50 million.

Waveland

Waveland is a island nation in the Asian region with a population of 50 Million. DROPS has had a 60% owned subsidiary in this country since 2003. However this particular subsidiary has incurred losses since its inception and is forecasted to earn losses for the next 3 years. The Group Finance Director has suggested to the board that DROPS divest the shareholding in the company and exit from this market. Furthermore continuing terrorist attacks in the main cities and war in the southern part of the country has unfavourably impacted tourism and major foreign investments in Waveland.

There are only two water treatment plant manufacturers in the country. However, rumour is that DROPS' competitor wishes to shut down operations but is unable to exit the market due to government pressures and the relationship maintained by the owners with local politicians. However, there are no companies selling RO bottled water or RO water systems to households in Waveland. Furthermore, there is a sizeable affluent segment in this country which maintains a high standard of living.

The minority shareholder in the DROPS subsidiary in Waveland have offered \$ 10 per share for 60% shareholding (6 Million shares) held by DROPS. PE ratio of this industry is in the range of 10 and the project had a negative Earning per Share (EPS) of \$ 2 last year. The project is forecasted as breaking even in the fourth year and earning a profit of \$ 50 Mio in the sixth year.

The minority shareholder maintains many other diverse businesses in the country and earns an annual profit of \$ 1 Bio per annum.

Corporate tax rate and interest rate applicable in Waveland are at 30% and 20% respectively. Dividends paid in this country are subject to 10% withholding tax.

Sales and Marketing Director

Patrick Williams was recently appointed Sales and Marketing Director of the Group to focus on the growth of the business. Patrick has a wide range of experience in working with multinationals in the automobile, FMCG and electronics sectors. Some of the recent acquisitions that he was responsible for at his former workplace proved a great success, which suitably impressed Jack to appoint him as DROPS Group Sales and Marketing Director.

Acquisition opportunities

Patrick strongly feels that the best way to grow fast in the current context is through carefully planned acquisitions. Within the three months of his employment in the company he has analyzed and recommended many acquisition opportunities which are summarized below:

1. TecSoft PLC

TecSoft is one of the leading manufacturers of membranes and filters in the world. They maintain healthy profits and Patrick was reliably informed by a Mergers and Acquisition Consultant that the majority shareholder of TecSoft may consider selling his shares if the price is right. TecSoft controls about 20% of the global production of membranes and filters, and have a good reputation for high quality, reliable products. 5% of the production costs of DROPS is absorbed by membranes and filters. TecSoft usually keeps a 25% margin on its products and gives 10% of its sales to DROPS.

2. ProtectWater

ProtectWater is an International NGO specializing in water research. Due to a lack of funding, the institution has decided to wind up its operations and have contacted DROPS to query if they would be able to absorb their water scientists. The Head of the NGO has informed the company that they have a pool of skilled and experienced scientists and that with them, DROPS has the resources to start its own water consultancy services for major water resources projects in the world should they wish to. The scientists offered by the NGO include specialists in hydrogeological areas, agriculture, water conservation and water purification.

3. Wathura

Wathura is a leading South Asian flavored mineral water company which offers a range of flavored water. This product focuses on the segment that wants a drink which is tasty yet healthy. They have an established distribution network covering 25,000 retail outlets and has currently utilized only 30% of its capacity.

4. CleanWater

CleanWater is a Dutch company specializing in steam distillation systems. Steam distillation relies on the physical principle of gravity to separate heavier inorganic salts from rising water vapor. As the water is boiled in a distiller, the steam rises, leaving salts (sodium, lime, etc), heavy metals (lead, mercury, etc), bacteria and other dissolved materials behind.

The pure steam vapors rising from the boiling water then enters a "heat exchange" system which cools the steam vapors back into distilled water drop by drop. Today we have many potentially toxic chemicals in our water supplies which vaporize at temperatures lower than that of water. To cope with this critical problem, most steam distillers use a "venting" system to allow "low boilers", such as chlorine, a means to escape prior to the recondensation process. Unfortunately, this venting process is inadequate to deal with the majority of harmful organic chemicals. These organic chemicals are thus eliminated by a carbon pre-filter which strips the organic chemicals from the incoming tap water prior to the boiling process. The combined action of the carbon pre-filter and the subsequent steam distillation process then provides water which is consistently 98-99% pure.

Steam distillation is a direct competitor for RO systems and the shareholders of CleanWater are expecting 25% higher than its currently traded share price. They have a presence in 25 countries and a strong base in Asia.

Asia

During the last three months, two new American Water treatment manufacturers have started operations in China and India. They offer a cheaper version of the RO system at competitive and affordable prices to suit these markets. Most of the components are manufactured locally. They are planning to invest over \$ 1 Billion during the next 3 years for operations in these markets.

Adrian Armstrong

The Olympic medalist who previously agreed to be the DROPS brand ambassador has cancelled his contract. There are rumors that one of DROPS' competitors have offered him better terms and is in the process of contracting him for the new bottled water they intend launching by the end of this year.

Household RO systems

The National Drainage Board in an European country has issued a written letter of warning to DROPS informing them that the water load in the drainage system has increased and waste water has started to overflow in a few areas due to the high rejection rate of waste water after RO treatment. The National Drainage Board has requested that DROPS look into the possibilities of reducing the rejection rate of water in the future.

End of Scenario II
End of Question Paper

Appendix 4:

SCMA PROFESSIONAL II CASE STUDY – CaS (804) September 2009- 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 judgement in a logical & rational manner.	20	High level of ability to recognize and present appropriate alternate solutions and make effective judgement in a logical and rational manner 17-20	Good level of ability to recognize and present alternate solutions and make effective judgement 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					