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**May 2019 Operational Case Study Examination
Pre-seen material**

VitaMine

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1. Job and Role Outline

You are a Finance Officer for VitaMine. Your main role is to support Ashok Kumar, the Finance Manager. Your tasks include preparation of the annual budget, producing the monthly management accounts and providing information to management as required. You also assist with the preparation of the financial statements and any queries regarding financial reporting.

2. Company Background

VitaMine, is a fast growing manufacturer of vitamins, minerals and supplements who are based in Eastland, South East Asia. The home currency in Eastland is the E\$.

The company was founded in 2002 by the existing four directors. It is currently owner-managed by the directors who hold equal shares of the company's equity. The company originally specialised in bee-derived ingredients but now produces a wide range of vitamin and supplement formulations and offers its own-brand range of products, along with providing contract manufacturing for other global vitamin and supplement brands. In addition to this the company works with new or existing retailers looking to develop private label ranges of vitamins and supplements.

The company has gained a reputation in the market as a company that delivers an excellent quality of product and service. This reputation together with a thriving industry has resulted in rapid growth over recent years. In the financial year to 31st December 2018 the company reported annual revenue of E\$31.9 million (an increase of 49% from the previous year) and profit before tax of E\$3.7 million (an increase of 59%). This rapid growth, however, has presented a number of challenges for the company in terms of managing the business, its staff and putting in place an appropriate infrastructure to support the growing business.

Company strategy

The company aims to continue to develop its product range, whilst meeting environmental standards and providing the best quality products and service. With this aim in mind the company has invested heavily in new manufacturing equipment, research and development and the funding of clinical tests to prove the efficacy of its products. The company has however identified a need for future investment in its central systems and processes.

The people

The company currently employs 323 staff of which 288 operate in manufacturing and research and development. The remainder are administrative staff operating in the Marketing and Sales, Finance, IT and Human Resources (HR) areas of the business. Staff numbers have grown rapidly, in response to the growth in revenue, which has presented significant challenges.

The Directors

The company's directors have a wide range of previous experience mainly in the food and retail industries. They are relatively young, highly enthusiastic and, as the owners and directors of the business, they are keen to ensure profitable business development. They keep a close watch on company operations and are the main decision makers within the business.

Directors' Profiles



Suresh Patel, Managing Director, is responsible for the company's strategy. He worked for a food manufacturing company before founding VitaMine in 2002. Suresh is proud of the success of the company but is concerned to ensure that an appropriate infrastructure is in place to support future expansion.



Melanie Tan is the Sales and Marketing Director. Melanie graduated from Eastland University with a BA in Management Studies. She worked as a marketing executive for a health food retailing company before joining the other directors to form VitaMine. Her experience in the retailing side of the industry is invaluable for the company.

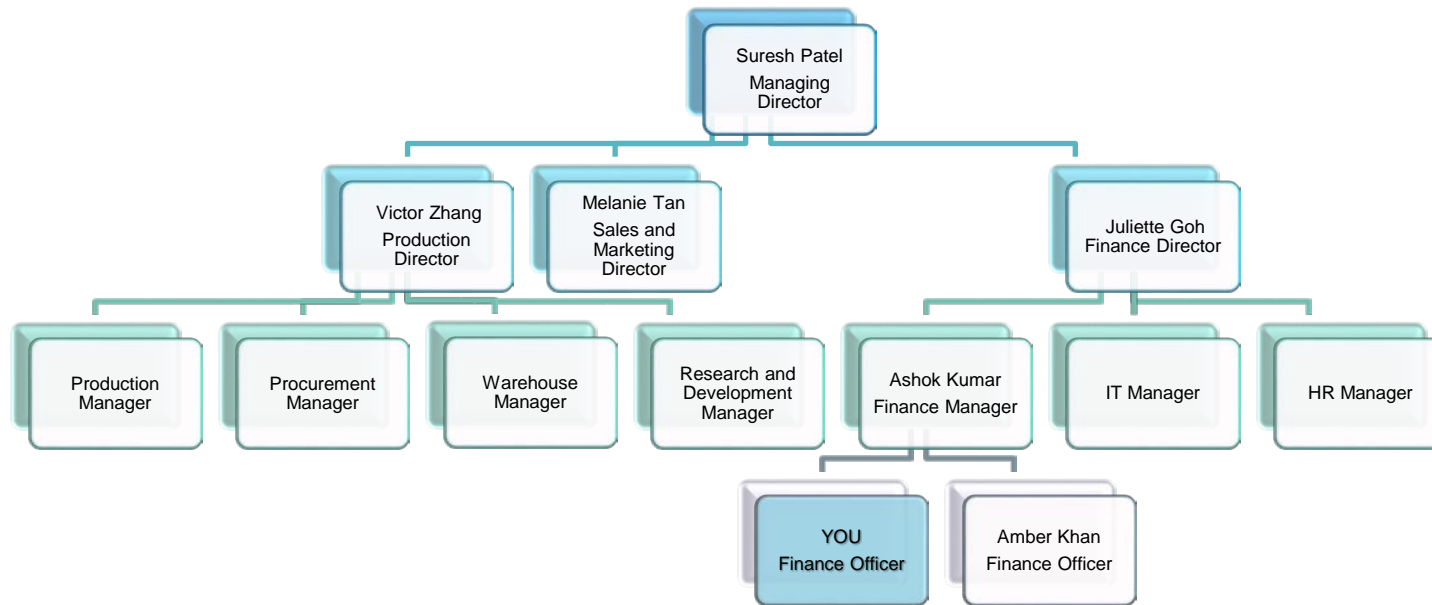


Juliette Goh, Finance Director, is responsible for Finance, IT and Human Resources (HR). Juliette is a CIMA qualified accountant and is known throughout the company for being a tough negotiator and keeping a tight rein on the company's finances.



Victor Zhang, Production Director, is responsible for both production and research and development. Victor is an engineer by profession and has been the main driver behind the company's growth. Victor is keen to expand the company further and is constantly looking at other potential new products.

Extract from VitaMine's organisation chart



3. Company Operations

The products

The company has three types of product format:

- capsules and tablets;
- liquids, serums and sprays;
- creams and gels.

There are four main product ranges:

Vitamins: these include the main vitamins A, B, C and D and other vitamin products for example, folic acid.

Minerals: these include minerals such as calcium, magnesium, zinc and iron.

Herbal supplements: these contain herbs, plant or part of a plant used for its flavour, scent, or potential therapeutic properties. This includes flowers, leaves, bark, fruit, seeds, stems, and roots. The range of products includes aloe vera, cranberry, ginger root, red raspberry leaf and sage leaf.

Targeted care products: these products are aimed at particular conditions including, weight management, joint care, digestion and hair, nail and skin care.

Vitamins, minerals, herbal supplements and targeted care products are all produced in capsule and tablet formats. Capsules and tablets represent the largest product format in sales volume and sales revenue. Both vitamins and targeted care products are produced in a cream and gel format whilst only vitamins are produced in a liquids, serums and sprays format.

The company's own product ranges are produced under the brand name 'VitaMine'. The company has a reputation for producing quality products and being a reliable supplier. It has adapted to changes in the modern retail environment and now, as well as producing its own product ranges, also provides contract manufacturing for many global vitamin and supplement brands. It also works with new or existing retailers looking to develop private label ranges of vitamins and supplements.

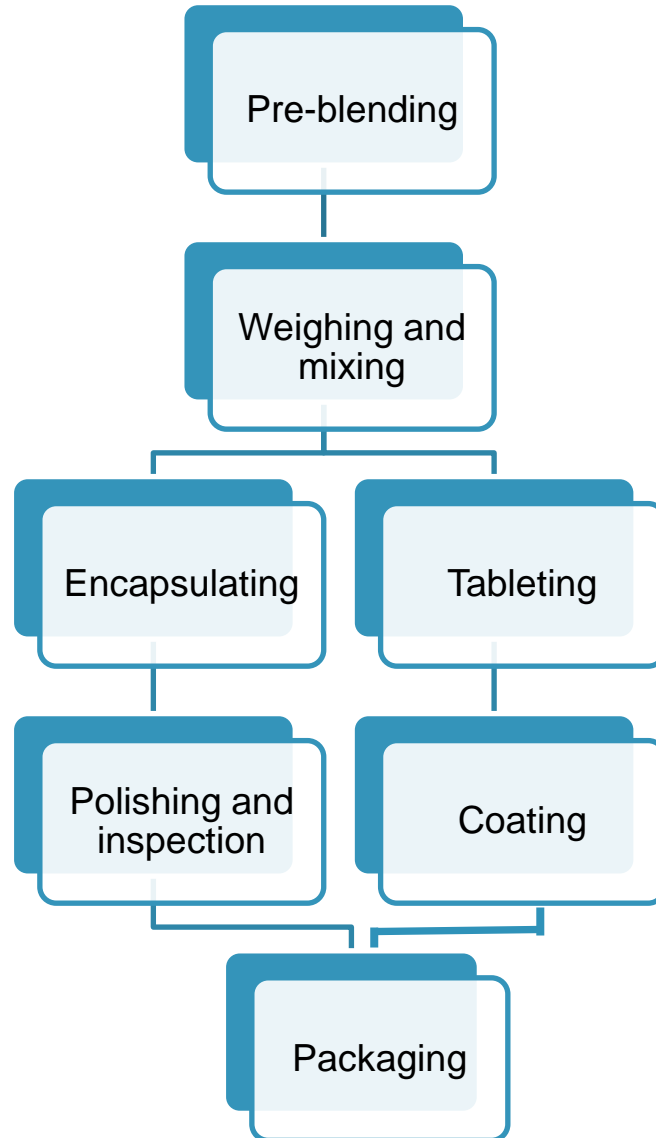
Manufacturing and Packaging

The company manufactures all three product formats at its 80,000 square metre, state of the art, manufacturing facility in Eastland, South East Asia. Capsules and tablets represent the main product format; producing 80 million capsules and tablets a week. Further details of the manufacturing process for capsules and tablets are given in the extract from the company website below.

After the manufacturing is complete, the company packages the products using a variety of presentation formats including pots and bottles, blister packs, tinctures and vials, and bespoke packaging.

Extract from VitaMine's website

How we manufacture our capsules and tablets



Pre-blending

Our raw vitamins, mineral and supplements are pre-blended with a filler ingredient such as microcrystalline cellulose or malto-dextrin to produce a more even granule which aids further processing.

Weighing and mixing

When all the ingredients are ready, they are weighed out on a scale. After weighing, all the ingredients are put into a mixer. The ingredients spend from 15 to 30 minutes in the mixer. At this point, samples are taken from different sides of the mixer and checked in the laboratory to verify that all the ingredients are distributed in the same proportion throughout the mix. After mixing is complete, the formula is taken to either an encapsulating or a tableting machine.

Encapsulating



Test batches are run on the encapsulating machine to check that the capsules are at the correct and consistent weight. The capsules are also checked visually for splitting or dimpling. If the test batches run correctly, then the entire batch will be run. The mixture flows through one hopper, and another hopper holds whole gelatine capsules. The machine breaks the capsules into halves. The bottom half of the capsule falls through a funnel into a rotating dosing dish, within which the machine deposits a precise amount of the powdered mixture. The powder is pushed down into the open capsule halves and then the top halves of the capsules are fixed onto the filled bottom halves.

Polishing and Inspection

The filled capsules then run through a polishing machine. The capsules are circulated on a belt through a series of soft brushes. Any excess dust or vitamin powder is removed from the exterior of the capsules by the brushes. The polished capsules are then poured onto an inspection table. The inspection table has a belt of rotating rods. The capsules fall in the grooves between the rods, and rotate as the rods turn. Thus, all sides of the capsules are visible for the quality inspectors. The quality inspectors remove any capsules that are too long, split, dimpled, or otherwise imperfect. The capsules that pass inspection are then taken over to the packaging area.

Tableting

Vitamin, mineral and supplement tablets are made in a tableting machine. After the blend has been mixed in the mixer, it is put into a hopper above the machine. The powder then flows through the hopper to a rotating table. The rotating table is fitted with holes that hold dies in the desired shape of the tablet (oval, round, etc.). The powder flows to fill the die and when the table rotates, the filled die moves into a punch press. When the upper and lower halves of the punch meet, pressure is exerted on the powder. The pressure compresses the powder into a compact tablet. The speed of the rotation of the table determines how many tablets are made per minute. The tablets eject from the punch onto a vibrating belt which vibrates any loose dust off the tablets. The tablets are then moved to the coating area.

Coating

After the tablets are taken from the tableting area, they are placed in the coating pan. The coating pan is a large rotating pan surrounded by one to six spray guns operated by pumps. As the tablets revolve in the pan, the pumps spray coating over them. Vitamin tablets are usually coated to make the tablet easier to swallow or to mask an unpleasant taste. Tablets may also be given a pH sensitive chemical coating that resists gastric acid. This ensures that the tablet will not break open in the stomach, but move to the intestine before dissolving. Other coatings determine the timing of the tablet's dissolution, so the vitamins can be absorbed slowly, or all at the same time.

Packaging

In the packaging area, the capsules or tablets pass through various machines. After they are placed in the hopper of the first machine, no human touches them.



The worker sets the machine to count out the required number of capsules or tablets per bottle, and the rest is done automatically. The capsules or tablets fall into a bottle, and the bottle is passed to the next machine to be sealed, capped, labelled, and shrink-wrapped. The finished bottles are then set in boxes and are ready for distribution.

Logistics

VitaMine operates a just in time (JIT) manufacturing and purchasing system.

The company's logistics system records the movement of all goods from the receipt of raw materials at VitaMine's warehouse to the distribution of the packaged products to wholesale and retail customers. The raw materials and finished products are held in a single warehouse which is situated adjacent to the Eastland factory.

VitaMine's products are distributed by road and by air. VitaMine operates its own road haulage trucks in Eastland but works with a number of shipping partners to deliver products to customers in other parts of South-East Asia and overseas.

Sales and marketing

VitaMine branded products are sold in two main ways:

- directly to medium and large retail chains in South-east Asia.
- to wholesalers who are carefully selected and sell VitaMine products overseas and via online channels. One wholesale customer, VitaSite, sells VitaMine products through their own website alongside other vitamin brands. Sales to VitaSite represent around 10% of total sales revenue.

VitaMine also sells private-label products to large retailers and products that are produced as part of the contract manufacturing operation.

VitaMine operates mainly a business to business (B2B) marketing strategy however it also occasionally advertises its products in targeted media such as health food magazines or selected health related websites.

Research and development

Research and development are a major focus for the company as it strives to develop new product formulations. The department also carries out clinical trials to test the efficacy and long term health benefits of taking vitamins.

Finance

The financial information system produces monthly management accounts and annual statutory accounts. This information system also generates daily and weekly sales revenue and gross margin information. The company operates a standard absorption costing system and applies a factory-wide overhead absorption rate based on direct labour hours.

Budgets are produced by the Finance Department on an annual basis using incremental budgeting. Information to formulate the budgets is obtained from the directors and the final budgets are approved by the board. Individual functional managers do not have budget responsibility. Monthly reporting on actual performance compared to budget is to the Board of Directors. The Finance Department is relatively small and much of the staff time is spent on day to day transaction processing. The Finance Department's role within the company has changed very little since the company was formed in 2002.

Human Resources

Human resources are the responsibility of the HR Manager. The company has expanded rapidly which has created a number of issues in this area. It has been recognised that there is a need to build new processes for human resource management to ensure the well-being of both existing and new staff.

4. The Vitamins, Minerals and Supplements Industry

Competitive Environment

The vitamins, minerals and supplements (VMS) industry has shown unprecedented sales growth over the last ten years. Globally, the market is now valued at US\$82 billion and is expected to continue to grow at a rate of 5-6% each year for the next few years.

Growth in the market has been fuelled by a number of factors including:

- a worldwide ageing population;
- increased consumer awareness of preventative healthcare;
- channel proliferation;
- new products formats and
- a shift from ingredient messaging to broader brand positioning.

The VMS industry is highly fragmented and manufacturers are accessing new sales channels to reach a diverse and broad set of consumers. The leading manufacturer maintains only 7 per cent market share of total sales value to end-consumers. The top five branded manufacturers together hold less than 25 per cent market share. Private labels i.e. own-brand retailers account for 10 per cent of sales. Such fragmentation is the result of a general lack of brand awareness and an absence of consumer loyalty and is likely to lead to increased merger and acquisition activity in the future.

Consumers

Supplements i.e. vitamins, minerals and herbal supplements are used by between 50% and 60% of Eastland adults. This appears to be based on the perception that these products are both safe and effective. While supplement use of all kinds is common, it's the use of multivitamins and minerals that pushes the overall consumption rates up. Regular usage of other kinds of supplements is around 10% of the adult population, however, 40% of adults do take some form of non-vitamin or mineral supplement intermittently.

Evidence suggests that the use of supplements is one component of a larger effort to develop a healthier lifestyle. Numerous surveys document that users of supplements are significantly more likely than nonusers to have better dietary patterns, exercise regularly, maintain a healthy weight, and avoid tobacco products.

Supplement users tend on average to be better educated and to have higher incomes than non-users, and these factors may contribute to their health-consciousness. Supplement use also tends to be more prevalent among women than among men, and the prevalence of use increases with age in both men and women.

Overall, the evidence suggests that users of supplements are seeking wellness and are consciously adopting a variety of lifestyle habits that they believe contribute to healthy living.

Future Outlook

The highest concentration of VMS sales in Eastland is in supermarkets, with online and specialty retailers following closely behind. Internet sales have experienced significant growth over the past decade, a trend that is expected to continue as consumers become more familiar with the products on offer and start to use online shopping for repeat purchases.

Continued growth of the VMS industry in Eastland is expected, coupled with increased oversight and a tightening of regulations, by Eastland government bodies, around manufacturing, product safety and efficacy claims. In common with other countries worldwide, there has been a noted increase in enforcement actions in Eastland, pertaining to food and supplement labelling violations. It is expected that manufacturers will in future, be more careful with the description they use on labels to avoid making either implied nutrient content claims or efficacy/health benefit claims. Tighter government regulation is also expected to be applied to manufacturing processes and practices in order to help ensure quality and safety in light of recent product recalls.

There has also been an increased focus in the last few years on potential bans of certain vitamins and supplements that may be harmful, such as a form of vitamin B6 and certain energy supplements. An increasing number of clinical research trials are being done to test the efficacy and long term health benefits of taking vitamins, some of which have suggested that large doses of certain vitamins may actually increase the risk of cardiac events in elderly people or those with heart disease. While tighter regulations will add a new measure of complexity for manufacturers, it will also provide an opportunity for businesses and government organisations operating in the market, to shape the market and jointly drive consumer education. Major players may decide to proactively work with regulatory bodies to help set more stringent regulation for supplements. Such regulatory changes and industry-government cooperation may ultimately engender greater consumer confidence in the safety and efficacy of VMS products, thus benefiting the overall market.

5. Extract from VitaMine's 2018 Financial Statements

Statement of Profit or Loss for the year ended 31 December	2018 E\$000	2017 E\$000
Revenue	31,884	21,424
Cost of sales	(24,093)	(15,792)
Gross Profit	7,791	5,632
Operating expenses	(4,042)	(3,292)
Operating profit	3,749	2,340
Finance costs	(94)	(41)
Profit before tax	3,655	2,299
Taxation	(709)	(481)
Profit / (loss) for the year	2,946	1,818

Statement of Financial Position
as at 31 December

	2018 E\$000	2017 E\$000
<u>Non-current assets</u>		
Intangible assets	22	30
Tangible assets	3,710	2,321
	3,732	2,351
<u>Current assets</u>		
Inventories	1,370	938
Trade receivables	4,643	3,908
Cash and cash equivalents	106	42
	6,119	4,888
<u>Total Assets</u>	9,851	7,239
<u>Equity and Liabilities</u>		
Share capital	1	1
Retained earnings	3,953	2,207
Total equity	3,954	2,208
<u>Non-current liabilities</u>		
Borrowings	1,274	840
	1,274	840
<u>Current liabilities</u>		
Trade payables	2,921	2,629
Accruals and deferred income	1,511	1,140
Current tax liabilities	191	422
	4,623	4,191
<u>Total Equity and Liabilities</u>	9,851	7,239

Statement of Cash Flows
for the year ended 31 December

	2018 E\$000	2017 E\$000
Cash flows from operating activities		
Profit / (loss) before tax	3,655	2,299
Depreciation	466	329
Amortisation	8	8
(Profit)/loss on sale of tangible assets	4	1
Net finance costs	94	41
(Increase) / decrease in inventory	(432)	(769)
(Increase) / decrease in trade and other receivables	(735)	7
Increase / (decrease) in trade and other payables	663	736
Cash generated from operations	3,723	2,652
Interest paid	(94)	(41)
Tax paid	(940)	(208)
Net cash generated from operating activities	2,689	2,403
Cash flows from investing activities		
Purchase of tangible assets	(1,883)	(947)
Proceeds on disposal of tangible assets	24	0
Net cash used in investing activities	(1,859)	(947)
Cash flows from financing activities		
Increase / (repayment) of long-term borrowings	434	(514)
Dividend paid	(1,200)	(960)
Net cash from/ (used in) financing activities	(766)	(1,474)
Net increase / (decrease) in cash and cash equivalents	64	(18)
Cash and cash equivalents at beginning of the year	42	60
Cash and cash equivalents at the end of the year	106	42

6. Budget Information

Budget for the year to 31st December 2019

Total company budgeted revenue and gross profit:

	Capsules & tablets	Liquids, serums & sprays	Creams & Gels	Total
	E\$000	E\$000	E\$000	E\$000
Total sales revenue	32,200	1,870	4,120	38,190
Cost of sales	24,120	1,193	3,317	28,630
Gross profit	8,080	677	803	9,560
Gross profit margin	25.1%	36.2%	19.5%	25.0%

Note: The figures above show the total from all revenue sources: VitaMine branded products, private-label products and contract manufacturing. Different gross profit margins are applied to each source.

Detailed budget for Capsules and Tablets:

	Vitamins	Minerals	Herbal supplements	Targeted care products	Total
Number of batches	15,000	14,000	6,000	5,000	40,000
Per batch	E\$	E\$	E\$	E\$	E\$
Average selling price	800	700	900	1,000	805
Standard cost	605	565	635	665	603
Gross profit	195	135	265	335	202
	E\$000	E\$000	E\$000	E\$000	E\$000
Total sales	12,000	9,800	5,400	5,000	32,200
Total cost of sales	9,075	7,910	3,810	3,325	24,120
Total gross profit	2,925	1,890	1,590	1,675	8,080
Gross profit margin	24.4%	19.3%	29.4%	33.5%	25.1%

Budgeted average standard costs per batch for Capsules and Tablets:

	Vitamins	Minerals	Herbal supplements	Targeted care products
	E\$	E\$	E\$	E\$
Direct material cost	380	340	410	440
Direct labour cost	125	125	125	125
Variable production overheads	25	25	25	25
Fixed production overheads	75	75	75	75
Total standard costs	605	565	635	665

Detailed budget for Liquids, serums & sprays and Creams & gels:

	Liquids, serums & sprays	Creams & gels		
	Vitamins	Vitamins	Targeted care products	Total
Number of batches	1,700	1,000	600	1,600
Per batch	E\$	E\$	E\$	E\$
Average selling price	1,100	2,200	3,200	2,575
Standard cost	702	1,848	2,448	2,073
Gross profit	398	352	752	502
	E\$000	E\$000	E\$000	E\$000
Total sales	1,870	2,200	1,920	4,120
Total cost of sales	1,193	1,848	1,469	3,317
Total gross profit	677	352	451	803
Gross profit margin	36.2%	16.0%	23.5%	19.5%

Budgeted average standard costs per batch for Liquids, serums & sprays and Creams & gels:

	Liquids, serums & sprays	Creams & gels	
	Vitamins	Vitamins	Targeted care products
	E\$	E\$	E\$
Direct material cost	450	1,200	1,800
Direct labour cost	140	360	360
Variable production overheads	28	72	72
Fixed production overheads	84	216	216
Total standard costs	702	1,848	2,448

VitaMine Key Statistics				
	Budget 2019	Actual 2018	Actual 2017	Actual 2016
Sales revenue	38,190	31,884	21,424	16,662
Sales growth	+19.8%	+48.8%	+28.6%	+22.3%
Gross profit	9,560	7,790	5,632	3,659
Gross profit margin	25.0%	24.4%	26.3%	22.0%
Operating profit	4,977	3,749	2,340	1,056
Operating profit margin	13.0%	11.8%	10.9%	6.3%
Number of capsules / tablets produced per week (million)	80	66	45	35

7. The Tax Regime in Eastland

Corporate Profits:

- The corporate tax rate applicable to taxable profits is 20%.
- The sales tax rate is 20%.
- Unless otherwise stated below, accounting rules on recognition and measurement are followed for tax purposes.
- The following expenses are not allowable for tax purposes:
 - accounting depreciation;
 - amortisation;
 - entertaining expenditure;
 - donations to political parties; and
 - taxes paid to other public bodies.
- Tax depreciation allowances are available on items of plant and machinery (including vehicles used for business purposes) at a rate of 25% per year on a reducing balance basis.
- Tax losses can be carried forward to offset against future taxable profits from the same business.

Your Health Monthly

16 April 2019 No. 78

E\$4.70

The rise and rise of the internet

Maya Ting, Business Correspondent

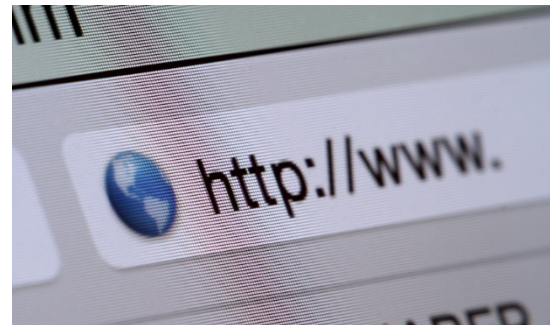
Many trends rise and fall. Our appetite for the internet however just keeps growing.

This is especially true on all matters of health and nutrition. It seems that many of us use the internet to get information that will improve our health and also to buy the products that are going to make a difference. A recent study revealed that growth in health related product sales is often driven by internet orders. This was illustrated in a recent 'Your Health Monthly' article featuring Kim Park, from the leading on-line vitamin retailer VitaSite, who explained that the internet has brought new customers to the business.

The question remains whether the internet is the best place to shop for our health and nutrition needs. It is of course very easy for buyers to create repeat orders at their convenience and from the comfort of their own home, yet it can be hard to know which of the web retailers to use.

These websites may offer just one brand or a range of brands for a particular product category.

In many cases, websites offer a vast range of brands for a large number of categories.



It is clear however that availability has driven growth in demand and often ensures that pricing is competitive. We should add though that our favourite search engines might not point us to the best products, just those companies most willing to spend on digital marketing.

We also see great steps forward in information provided by these internet retailers. Details on labels are very visible along with useful information on product benefits and wider health advice. Some even helpfully organise their product range by health issue or age range. Furthermore, delivery is often quick with the option of easy returns if required.

Whether the Internet is the best place to buy your health products depends on your health. It is certainly a growing and a much improved channel.

Health Food Weekly

10 April 2019 No. 72

E\$2.70

Vitamin supplements: dispelling the myths

Simon Lui, Business Correspondent

Roughly 50% of Eastlanders take a multivitamin — but they might just be wasting their money. Scientists say there is no strong evidence to back up the belief that taking multivitamins makes you healthier.

"Most supplements do not prevent chronic disease or death, their use is not justified, and they should be avoided" says Hock Tan from the National Health Institute.

Very broadly speaking, vitamins are a group of substances that your body needs for normal cell function, growth, and development. Vitamins perform different functions in your body, from assisting in bone growth to helping convert food into energy. Whilst your body needs them, it can't make them on its own, so you have to get them from food or supplements. The only exception is Vitamin D, which your body makes when your skin is exposed to the sun.



Technically, vitamins that exist naturally in food work the same as synthetic ones in tablets and capsules. But getting your vitamins from food is still preferred. In whole foods, vitamins come 'pre-packaged' with other beneficial substances, like fibre and phytonutrients.

A lot of the time, vitamins work in synergy with other nutrients. You can't replicate that synergy with a vitamin supplement, and the high vitamin doses found in some supplements can actually be harmful. Too much of anything can be toxic at a certain point. Getting too much of a vitamin is harmful too.

You should also ignore claims on vitamin packages that vitamins give you energy — only calories can do that. And just because a food or drink has been pumped full of vitamins does not make it healthy. Many food and drink with added vitamins also have added sugars.

If you still feel the need to buy vitamin supplements, check the nutrition facts and the ingredients list carefully!!