

May and August 2024
Operational Case Study
2019 CGMA Professional Qualification
Full post exam support materials

Below are the full post-exam supporting materials for the Operational Case Study Exam.
Use the links on this page to jump to the documents required.

Pre-seen material

May and August 2024 Operational Case Study [pre-seen](#).

Examiner's report

The May and August 2024 [examiner's report](#).

Exam variants

- [Variant 1](#)
- [Variant 2](#)
- [Variant 3](#)
- [Variant 4](#)
- [Variant 5](#)
- [Variant 6](#)

Suggested solutions

- [Suggested solutions for variant 1](#)
- [Suggested solutions for variant 2](#)
- [Suggested solutions for variant 3](#)
- [Suggested solutions for variant 4](#)
- [Suggested solutions for variant 5](#)
- [Suggested solutions for variant 6](#)

Marking Guidance

- [Marking guidance for variant 1](#)
- [Marking guidance for variant 2](#)
- [Marking guidance for variant 3](#)
- [Marking guidance for variant 4](#)
- [Marking guidance for variant 5](#)
- [Marking guidance for variant 6](#)

If you need any further information please [contact us](#).

Operational Case Study Examination

May-August 2024

Pre-seen material

Kanann



Context Statement

We are aware that there has been, and remains, a significant amount of change globally. To assist with clarity and fairness, we do not expect students to factor these changes in when responding to, or preparing for, case studies. This pre-seen, and its associated exams (while aiming to reflect real life), are set in a context where current and on-going global issues have not had an impact.

Remember, marks in the exam will be awarded for valid arguments that are relevant to the question asked. Answers that make relevant references to current affairs will, of course, be marked on their merits.

Contents

Your role	2
Introduction.....	3
Extract from Keeland Pony Club Manual.....	4
Article in Keeland Equestrian News.....	5
The industry.....	6
Extracts from the Kanann sales brochure	8
The directors and key managers.....	9
Production, sales and finance teams.....	10
Article: a 5-minute interview with Freya Kanann	11
Other information about company operations	12
Financial statements for the year ended 31 December 2023	17
Budget information for the year ending 31 December 2024	20
Tax regime in Keeland.....	22

Your role

You are a Finance Officer working within the Finance Department of Kanann. You are principally involved in the preparation of management accounting information and providing information to managers to assist with decision making. At times, you are also expected to assist with the preparation of the financial statements and answer queries regarding financial reporting and other financial matters.

Introduction

Kanann is a company that designs, makes and sells saddles for horse riding. Kanann only makes saddles, it does not make bridles. Companies such as Kanann are known as saddle makers. The company is based in Keeland, a country located in mainland Europe which has the K\$ as its currency.

Kanann was founded in 1906 by William Kanann. William started his working life as an apprentice saddler and, after completing his apprenticeship at a local company, started his own business making saddles for the Keeland Army. He purchased a site on the outskirts of his local town and built a workshop. The company remains on this original site, although it has expanded over the years to incorporate a production facility, inventory warehouses and offices.

During the 1920s and 1930s, the customer base widened to include civilian customers and customers in other European countries. During this time, the company became known for its high quality, stylish saddles.

The saddles made and sold by Kanann today are based on traditional designs and are marketed as general purpose saddles rather than specialist saddles. Their more traditional design means that Kanann saddles have limited appeal in some modern markets. The innovation and developments seen in the products offered by other saddle makers, but lacking in Kanann's saddles, are thought to be reasons why Kanann's sales have not increased as much as those of some other brands. The general perception in the market is that, although Kanann's saddles offer value for money, the company has significantly fallen behind the times.

A saddle consists of a tree (the inner skeleton of the saddle), webbing and leather pieces which are stitched together to create the saddle. The company currently offers a range of three different styles of saddle and different options in respect of the tree and the quality of the leather used. Today, Kanann's saddles tend to be used by amateur equestrians who typically use them for hacking and occasionally for very low-level competition.

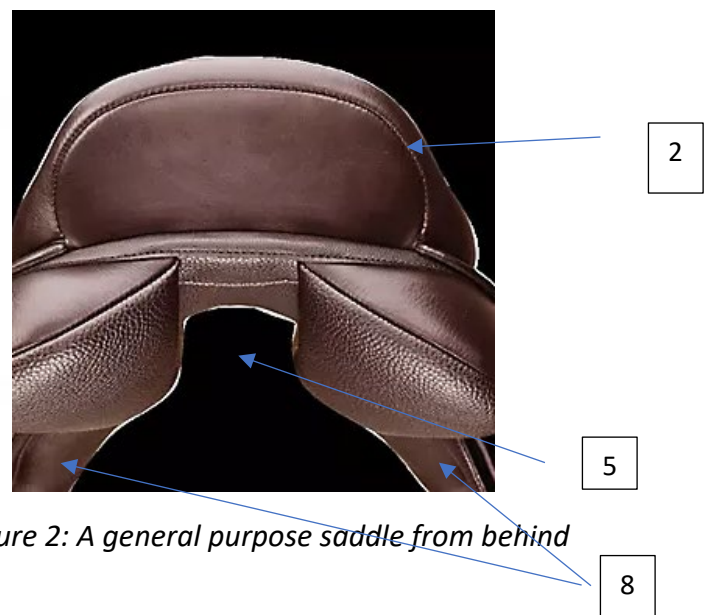
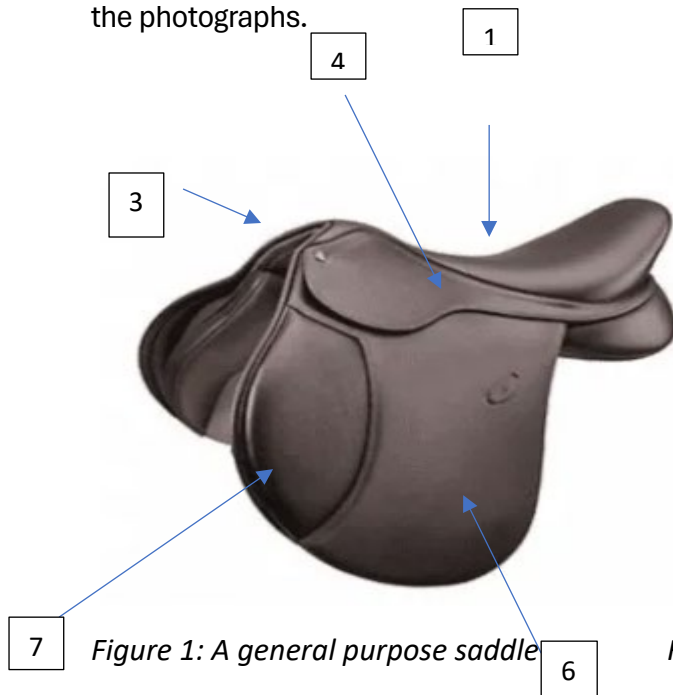
Throughout the company's history, it has been owned and managed by the Kanann family. The company's current Managing Director is John Kanann. John has a sister, Ann, and they hold 80% and 20% of Kanann's equity shares respectively. Ann is a successful author of romantic novels and has no interest in horses or equestrian pursuits. She is not involved in the management of Kanann.

John's daughter, Freya Kanann, has participated in equestrian sports from when she was a small child. She is now an international show jumper and represented Keeland at the recent World Equestrian Games. Freya's medal-winning performances in individual and team events at the World Equestrian Games led to her inclusion in Keeland's Olympic team. Freya's sporting prowess is matched by her intellect. She recently graduated from a prestigious Keeland university with a first-class honours degree in Accountancy and Finance. After graduation, Freya started working at Kanann, although she does take substantial periods of leave to continue her equestrian career. John is immensely proud of his daughter's academic and sporting achievements and welcomes her involvement in the company, which he freely admits has an ageing management profile and needs new ideas.

Extract from Keeland Pony Club Manual

Chapter 3: The general-purpose European style saddle

A general-purpose European style saddle (*figures 1 and 2*) is designed to accommodate different riding styles and disciplines. It is important to understand the different areas of a saddle when looking after your horse. Below, we have a numbered list of the different areas of a European style saddle with an explanation of each area. These correspond to the numbers in the photographs.



1. **Seat:** The seat of the saddle is where the rider sits. It should provide a comfortable and balanced position for the rider.
2. **Cantle:** The cantle provides support and security for the rider, helping to keep them in place during riding. The height and angle of the cantle can affect the rider's position.
3. **Pommel:** This is the raised front portion of the saddle seat.
4. **Tree:** This is the internal framework of the saddle that gives it its shape and structure. It plays a crucial role in distributing the rider's weight evenly across the horse's back. A well-designed tree is essential for horse comfort. The tree cannot be seen in the photographs.
5. **Gullett:** This is the channel which runs along the length of the saddle underneath the seat. It provides clearance for the horse's spine, ensuring there is no pressure on the horse's back.
6. **Flaps:** These are the large leather panels that hang down on both sides of the saddle.
7. **Knee rolls and thigh blocks:** Knee rolls and thigh blocks are padded areas on the front of the saddle flaps. They provide additional support and stability for the rider's legs.
8. **Panelling:** The panels are the padded areas which come into direct contact with the horse's back. They should be designed to distribute the rider's weight evenly and provide cushioning.

After a saddle has been assembled, it is then stuffed with flocking to provide padding in the seat. Flocking can be made of wool or synthetic material or a mixture of both.

Article in Keeland Equestrian News

How have European Saddles developed over the last 500 years?

Ella Winter-Barker for The Keeland Equestrian News



Medieval soldiers on horse back



17th Century rider

Horse riding saddles have a rich history, dating back millennia and their design has evolved significantly over the last 500 years. This development has been driven by the changing needs of riders, improvements in materials and manufacturing, as well as a deeper understanding of equine anatomy and biomechanics. This looks set to continue.

The Medieval Era (15th Century) saw saddles which were simple and practical and, as the illustration above shows, were designed mainly for military use. High pommels and cantles provided stability for knights in armour. Stirrups, introduced around the 9th century, were pivotal in developing improved control and balance.

The 16th and 17th Centuries, in the Renaissance and Baroque periods, saw saddles becoming more decorative and focussed on rider comfort. The rise of Equestrian arts and a desire for elegance led to saddles being elaborately adorned.

With The Age of Enlightenment, the 18th and 19th Centuries saw more advancements. With saddles becoming lighter and more balanced, with better weight distribution, the introduction of wooden saddle trees and developments in design, these all allowed greater freedom of movement for the rider.

Saddle design continued to be revised during the 20th Century with disciplines like dressage, show jumping and eventing driving the creation of specialised saddles tailored to the unique demands of each discipline.

The industry

Overview of the market

Kanann's market share in Keeland is relatively small in terms of the volume of saddles sold. However, there is a flourishing equestrian market in Keeland, with the sector generating K\$4 billion of GDP each year. Approximately 1% of the 26 million households in Keeland own horses with an average of 2.4 horses being owned by each horse-owning household.



Countries with a tradition of horse ownership usually have saddle makers which only sell into the domestic market as well as saddle makers which sell globally. Saddle makers typically sell saddles to wholesalers and retailers of equestrian equipment. Such equestrian equipment retailers usually have their own in-house saddle fitters who will connect with the end user to make the sale. Saddle makers do not usually sell directly to the end user.

Today, individual riders may have multiple saddles for one horse, with each designed to improve performance in a specific discipline. For instance, a show jumping saddle will be made with large knee rolls to allow better grip when jumping, whilst a dressage saddle is likely to have a deeper seat to allow better contact with the horse when completing dressage tests. In addition, riders with multiple horses are also likely to have saddles specifically sized to each horse they own. The move to riders having specific horses for specific disciplines has driven global sales over the past few years and is expected to continue in coming years.

Global saddle manufacture

Saddle manufacturing is an industry with many national and global manufacturers. There is a high concentration of saddle makers in areas such as the USA, Australia and South Asia where there are long equestrian traditions. However, the equestrian saddle market is very diverse and includes different separate equestrian pursuits such as polo, horse racing and European and Western riding. Manufacturers in each of these individual fields do not compete in most cases, with only a very few global firms operating in more than one market.

Developments are being seen in the saddle industry in terms of both production and design. Production, which has previously been very labour intensive, is now seeing a move to more automated production techniques in areas such as leather cutting. However, despite this, the production of a saddle still relies heavily on the skilled labour of the saddle makers in relation to stitching and assembly.

Design improvements are being seen in the use of high-tech materials, for instance, using carbon fibre in tree manufacture to obtain a lighter and stronger tree and the introduction of


synthetic materials in the production of saddles. There have also been moves to introduce more automation into the production process, which has traditionally been very labour intensive.



Extracts from the Kanann sales brochure

Our saddle range

At Kanann, our long history as equestrian saddle makers shows in our range of traditional saddles and designs. Each saddle has evolved with the aim of helping both horse and rider to enjoy their activity.



We offer you three different styles of saddle, each named after horses that have been owned by the family over the years. These are:

Astral

Meteor

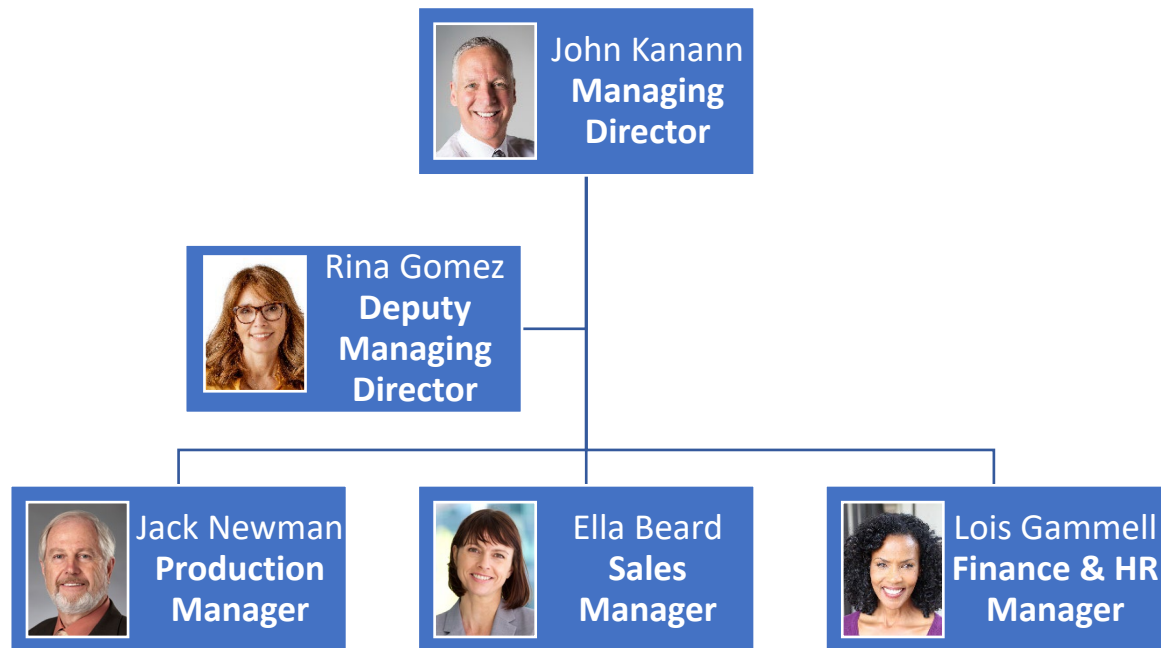
Comet

There are two models of the Astral, two models of the Meteor and one model of the Comet. Each model uses a different grade of leather, from E grade (economy quality) to A (premium quality) and either a Type 1, Type 2 or Type 3 saddle tree.

Saddle style	Astral		Meteor		Comet
Average price	K\$2,750	K\$3,250	K\$3,500	K\$4,000	K\$4,500
Saddle tree type	Type 1	Type 2	Type 2	Type 3	Type 3
Leather grade	E	D	C	B	A

Each model is available in different sizes to allow the saddles to fit different height riders and different size horses.

The directors and key managers



John Kanann, Managing Director

John has overall responsibility for the business and is actively involved in all areas. He insists on having the final sign off on new designs and products. John started with the business at the age of 16 and is now 52 years old. He trained as a saddler and is a member of the Keeland Guild of Saddlers.

Rina Gomez, Deputy Managing Director

Rina joined the company from university in 1993 as a member of the sales team. Before becoming Deputy Managing Director, she was Sales Manager. As part of her duties, she oversees the sales, finance and HR functions and deputises for John when he is away.

Jack Newman, Production Manager

Jack Newman started as an apprentice with Kanann in 1985. He has worked in each of the company's production departments before becoming Production Manager and is responsible for all aspects of production and raw material procurement.

Ella Beard, Sales Manager

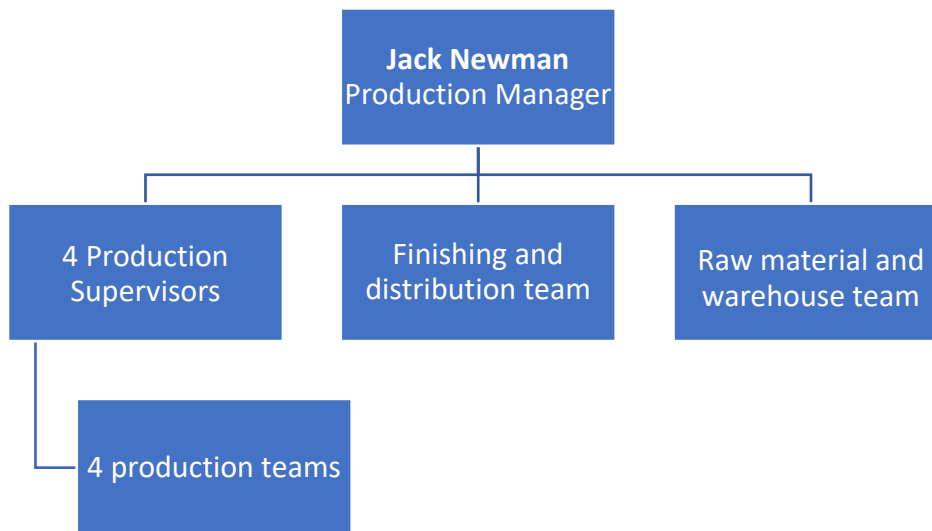
Ella is responsible for the company's sales and marketing. She reports to Rina Gomez. She joined Kanann in 2022. Immediately prior to her appointment at Kanann, Ella held a senior sales position for a competing saddle maker in Keeland.

Lois Gammell, Finance & HR Manager

Lois Gammell qualified as an accountant in 1988 and has worked for Kanann since 1995. She is responsible for all finance, human resources and IT issues. Before joining Kanann, she worked at Keeland Health Service.

Production, sales and finance teams

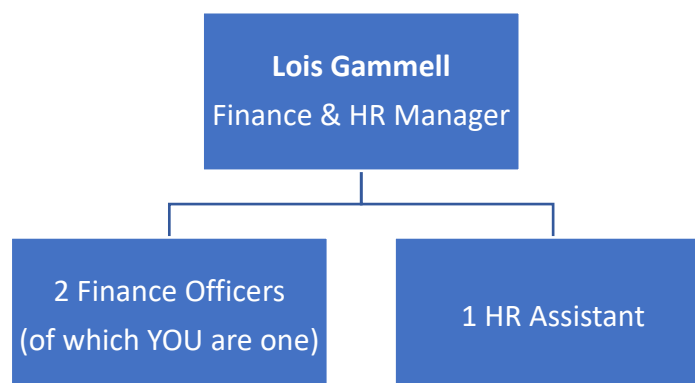
Production team



Sales team



Finance team



Article: a 5-minute interview with Freya Kanann

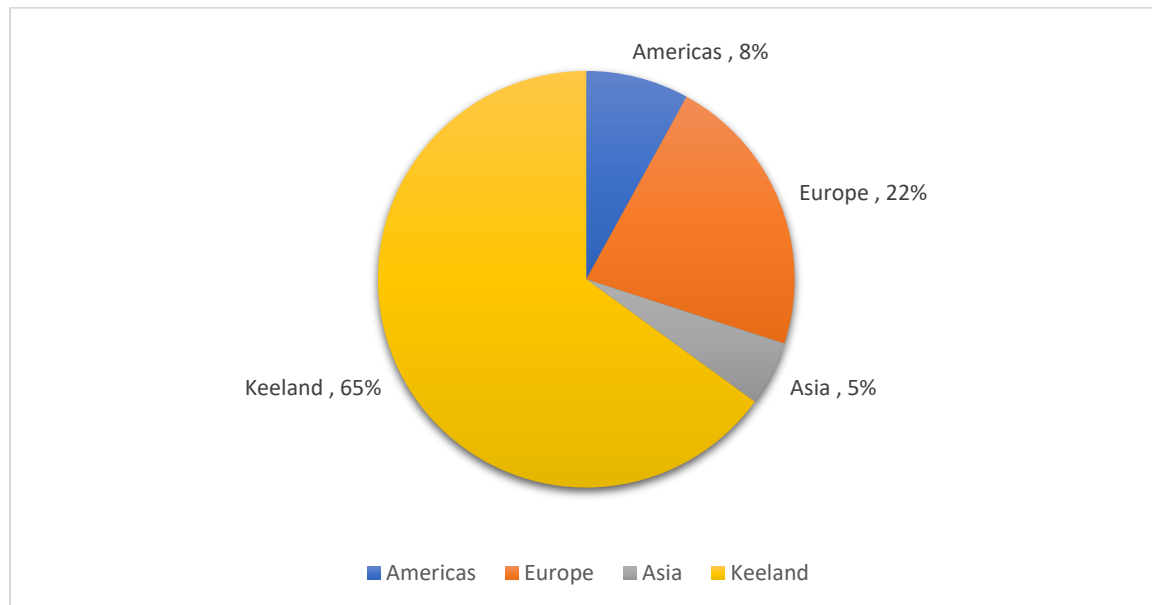
Equestrian Pursuits
The 5-minute interview with Jon Ford, Senior Editor
<p>Jon: Lovely to meet you finally Freya. I've followed your equestrian career with great interest over the past few years and hear that despite being busy competing you have also just graduated from university as well. A great achievement, many congratulations. What are you going to fill your time away from riding with now?</p> <p>Freya: Thank you, Jon. It was a bit of a juggle at times, especially with international competitions covering the whole of the year because of the timing of competition seasons in different countries. But I'm competitive and determined, so I just put my head down and worked hard. In terms of next steps, I've just spent some time shadowing my father at Kanann to start learning about and seeing how the business operates.</p> <p>Jon: I see – so the idea is to move into the family business full time at some point?</p> <p>Freya: Yes, although thankfully Dad knows that my equestrian career takes precedence at the moment, so doesn't expect me there all the time.</p> <p>Jon: So, the Kanann name is well known for general purpose saddles and the company has a long history. Do you have a Kanann saddle yourself that you use?</p> <p>Freya: Actually, I do use a Kanann saddle when I'm riding for leisure. I have different saddles for competing though and these come from the brand that is best suited to the specific event and the horse I'm riding at that time.</p> <p>Jon: Will you now become the face of Kanann?</p> <p>Freya: Actually, I guess I will. In fact, I recently received an offer of sponsorship from the manufacturer of one of the brands of saddles I use when competing. Although it was a lucrative offer, and tempting from a personal perspective, I declined it because, given that Kanann is my family business, I don't want to be seen as an ambassador for another brand of saddles.</p> <p>Jon: So, does that mean that Kanann might move into the field of specialist saddles for competing?</p> <p>Freya: In time, possibly. Many of the people I know at the higher levels of the sport have heard of Kanann saddles, but very few have them because they tend to use saddles from brands that they are already familiar with. In time, I'd like to push Kanann forward to become the number one choice for general purpose and discipline-specific saddles.</p> <p>Jon: So, plenty to keep you busy with over the next few years! Good luck with all of that and your next championships. I shall be following you with great interest.</p> <p>Freya: Thanks Jon.</p>

Other information about company operations

Sales markets and sales channels

Kanann sells its saddles in Keeland, other parts of Europe, Asia and the Americas. Sales in Keeland accounted for 65% of total revenue for Kanann in its year ended 31 December 2023.

For the year ended 31 December 2023, the company sold 1,705 saddles, generated revenue of K\$5,860,000 and a gross profit margin of 33.8%. Kanann's revenue is analysed as follows:



Kanann does not sell direct to the public: it sells to equestrian wholesalers and retailers. These wholesalers and retailers are independent of Kanann. Some specialise and sell only saddles whilst others sell saddles and other equestrian equipment (such as horse rugs and bridles). Some wholesalers and retailers only sell Kanann saddles, but others sell different brands of saddles too.

Kanann receives orders from the wholesalers and retailers by either e-mail or by them placing orders with Kanann's sales team by phone or in person. The sales team try to visit the wholesalers and retailers based in Keeland at least twice each year.

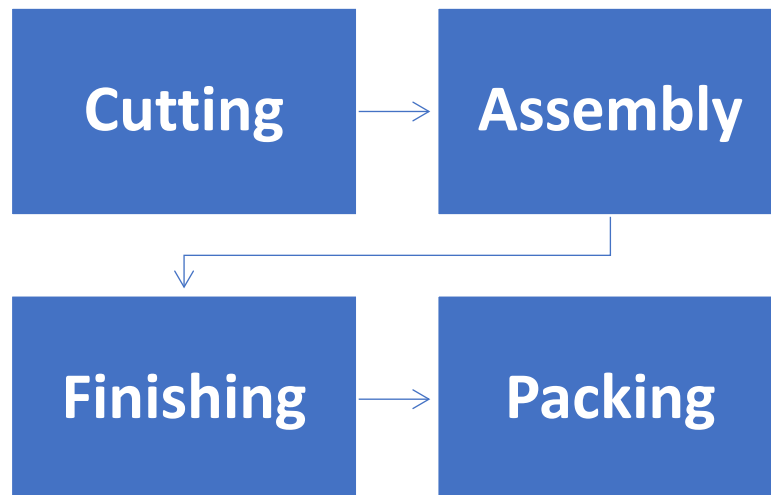
The credit period given to wholesalers and retailers ranges from 30 to 60 days and, because of close relationships with the sales team, all of the wholesalers and retailers pay within the appropriate credit period.

Production

Kanann manufactures all of its saddles at its single Production Facility. The facility includes several different buildings which are used for production as well as a raw materials and finished goods warehouse.

The total production and packing time for one saddle is approximately 28 direct labour hours, depending on the model being produced.

The four main stages in producing a saddle are:



Cutting	<p>A saddle consists of several pieces of leather. All the leather is bought in as butts and there are five grades of leather used across the range of saddles. A 'butt' is a sheet of leather.</p> <p>The main leather parts of a saddle are the seat, the knee rolls, the flaps and the panel. These parts are cut to shape and size for a single saddle from a single leather butt. The pieces are cut and prepared by hand using cutting dies and machines. The offcuts from the leather butt are not used.</p>
Assembly	<p>Assembly starts with the tree. The 'tree' is the inner skeleton of the saddle and forms a base onto which the leather is attached. The company purchases the trees used to form the skeleton of the saddle from third-party suppliers who use six to eight layers of plywood in each tree. The company insists that their saddle tree suppliers source wood from sustainable forests.</p> <p>The trees used come in three different qualities and the type of tree used depends on the model of saddle it is included in. The trees supplied are already reinforced with metal strips around their full length. The first stage of assembly is to add head plates (which form the shape at the front of the saddle) and stirrup bars using rivets and screws.</p> <p>The next stage is 'webbing' which makes the 'seat', which is the suspension platform for the rider to sit on. It separates the seat from the tree. This process is done by adding the webbing (which is made of nylon) which is stretched lengthways and across the tree to form the seat shape. When the webbing has been stretched, the next stage is to apply foam padding, then add the leather and stretch it over the tree.</p> <p>The saddle is then sewn together. Each saddle is stitched together using a mixture of hand sewing and an industrial sewing machine. After the saddle pieces have been sewn together, the saddle is then stuffed with flocking and any design elements are added.</p>
Finishing	<p>Completed saddles are moved to the Finishing Department. Here, the saddles are oiled. Oiling the saddle prevents the leather from cracking, ensuring it remains supple and extending its life. The saddle also undergoes final quality checks. After these checks are completed, the company's promotional labels and other branding are added.</p>
Packing	<p>The finished saddles are moved to the Packing Department. Packing is extremely important given the high value of each saddle and the risk of damage during transit. The differing types and sizes of saddles are packaged in bespoke boxes which are bought in. These boxes are designed for the presentation of the saddles by the wholesalers and retailers to their customers. The boxes are also used by customers to transport the saddles to different venues and as such are essential for protecting the product during transport.</p>

Distribution

Distribution of saddles is outsourced to a major distribution company which delivers anywhere in Keeland 6 days a week. The same distributor is also used for sales to other countries.

Purchasing and suppliers

The main raw material inputs into the production process are:

Tree	<ul style="list-style-type: none">•The company uses three grades of general purpose trees in their saddles. They are Type 1, Type 2 and Type 3. Type 3 trees are lighter than the Type 1 and Type 2 trees and therefore more expensive.
Leather	<ul style="list-style-type: none">•Leather butts come in five grades, A to E, with A being the highest grade.•A butt is 1.5 square metres (1.5 metres x 1 metre). All butts are the same size.
Flocking	<ul style="list-style-type: none">•Kanann uses 100% long fibre white wool flock. White wool flock is one of the best quality flocks as it is very hard wearing.
Consumables	<ul style="list-style-type: none">•Webbing is purchased in 100m rolls and is made from recycled nylon.•Tools include: bone folders, awls, needles and plastic mallets.•Other consumables include: dyes and glues, polyester, linen and nylon thread and stirrup bars, rivets and screws as well as packaging.

Kanann has good relationships with its suppliers. Many of the suppliers have been with Kanann for over a decade. In fact, some suppliers have been with the company since its inception.

Where possible, Kanann chooses suppliers with a commitment to follow sustainable production processes. For example, Kanann insists that the packaging bought in for its own saddles is made from 100% recycled packaging.

Credit terms from suppliers range between 30 days and 75 days. Some suppliers offer prompt payment discounts, although Kanann does not always take advantage of these. Bulk discounts are also available on the flocking and many of the consumables used in production. Kanann does take advantage of these where possible.

Warehouse

Receipt and storage of good inwards, issues to production and storing of finished saddles are all labour-intensive activities.

Employees

Kanann had the following employees on 30 June 2023

	Number
Production Facility	40
Head Office*	15
	55

*Head Office includes the sales, finance and human resources teams and the directors.

Finance

Kanann's financial recording systems are not integrated and must be reconciled on a regular basis to ensure each area is accurate.

The company operates a standard absorption costing system based on direct labour hours with a single fixed absorption rate. The standard cost of a saddle is updated for known changes in raw material prices, labour rates and overheads each year.

Record keeping is not sophisticated. For example, webbing, when issued for production, is simply allocated to "production" as opposed to the specific saddles being made and as such is classified in the accounting system as a consumable. Webbing is therefore included in variable overhead in the costing system.

The treatment of webbing in the costing system echoes the traditional views within the company that, to a large extent, it manufactures a homogenous product: a saddle is a saddle. Originally, the cost of a saddle was calculated as total costs for the year divided by the number of saddles produced.

In recent years, efforts have been made to refine the system, for example, by recording direct labour times per saddle, in addition to the specific materials needed for each type of saddle. Historically, Kanann's financial systems were focussed on producing financial statements rather than providing useful management information.

Budgets are prepared annually on an incremental basis.

Financial statements for the year ended 31 December 2023

Kanann

Statement of profit or loss for the year ended 31 December 2023

	2023 K\$000	2022 K\$000
Revenue	5,860	5,690
Cost of sales	(3,878)	(3,699)
Gross profit	1,982	1,991
Selling and distribution costs	(705)	(691)
Administrative expenses	(760)	(742)
Operating profit	517	558
Finance costs	(12)	(12)
Profit before tax	505	546
Income tax expense	(100)	(110)
Profit for the year	405	436

Kanann**Statement of financial position at 31 December 2023**

	2023 K\$000	2023 K\$000	2022 K\$000	2022 K\$000
ASSETS				
Non-current assets				
Property, plant and equipment		1,142		1,187
Current assets				
Inventory	590		645	
Trade receivables	867		811	
Other receivables	115		120	
Cash and cash equivalents	212		85	
		1,784		1,661
Total assets		2,926		2,848
EQUITY AND LIABILITIES				
Issued K\$1 equity share capital		10		10
Retained earnings		1,771		1,716
Total equity		1,781		1,726
Non-current liabilities				
Borrowings		200		200
Current liabilities				
Trade payables	530		505	
Other payables	315		307	
Tax liability	100		110	
		945		922
Total equity and liabilities		2,926		2,848

Kanann**Statement of cash flows for the year ended 31 December 2023**

	K\$000	K\$000
Cash flows from operating activities:		
Profit before tax		505
Adjustments		
Depreciation of property, plant and equipment	205	
Loss on sale of property, plant and equipment	12	
Finance costs	12	
		229
Movements in working capital		
Decrease in inventory	55	
Increase in trade and other receivables	(51)	
Increase in trade and other payables	33	
		37
Cash generated from operations		771
Tax paid		(110)
Interest paid		(12)
Net cash inflow from operating activities		649
Cash flows from investing activities:		
Purchase of property, plant and equipment	(182)	
Proceeds on disposal of property, plant and equipment	10	
Net cash outflow from investing activities		(172)
Cash flows from financing activities:		
Dividend paid	(350)	
Net cash outflow from financing activities		(350)
Net increase in cash and cash equivalents		127
Cash and cash equivalents at the start of the year		85
Cash and cash equivalents at the end of the year		212

Budget information for the year ending 31 December 2024

Total budgeted gross profit

	Astral		Meteor		Comet	Total K\$000
	Type 1 K\$000	Type 2 K\$000	Type 2 K\$000	Type 3 K\$000	Type 3 K\$000	
Revenue	1,306	1,381	858	1,140	1,328	6,013
Cost of sales	(965)	(964)	(573)	(701)	(779)	(3,982)
Gross profit	341	417	285	439	549	2,031
Gross profit margin	26.1%	30.2%	33.2%	38.5%	41.3%	33.8%

Budgeted sales

	Astral		Meteor		Comet	Total
	Type 1	Type 2	Type 2	Type 3	Type 3	
Sales volume	475	425	245	285	295	1,725
	K\$	K\$	K\$	K\$	K\$	
Average selling price	2,750	3,250	3,500	4,000	4,500	
	K\$000	K\$000	K\$000	K\$000	K\$000	K\$000
Revenue	1,306	1,381	858	1,140	1,328	6,013

Budgeted cost of sales

	Astral		Meteor		Comet	Total
	Type 1	Type 2	Type 2	Type 3	Type 3	
Sales volume	475	425	245	285	295	1,725
	K\$	K\$	K\$	K\$	K\$	
Raw materials	460	640	645	710	770	
Direct labour	680	705	735	760	815	
Variable production overheads	267	277	287	297	317	
Fixed production overheads	624	647	670	693	739	
Total	2,031	2,269	2,337	2,460	2,641	
	K\$000	K\$000	K\$000	K\$000	K\$000	K\$000
Cost of sales	965	964	573	701	779	3,982

Example standard cost card

Astral: Type 1 Tree				
	Quantity / hours	Standard price / rate K\$	Standard cost K\$	Total standard cost K\$
Direct materials:				
Tree	1	100.00	100.00	
Leather	1 butt	300.00	300.00	
Flocking	0.50 kg	40.00	20.00	
Packaging	1	40.00	40.00	
Total direct materials				460.00
Direct labour:				
Cutting	4 hours	30.00	120.00	
Assembly	17 hours	25.00	425.00	
Finishing	3 hours	20.00	60.00	
Packing	3 hours	25.00	75.00	
Total direct labour				680.00
Variable production overheads	27 hours	9.90	267.30	267.30
Fixed production overheads	27 hours	23.10	623.70	623.70
Total production cost				2,031.00

Notes on standards and budget preparation

1. Standards are reviewed and updated annually for any known changes.
2. Idle time is not budgeted for.
3. Production overheads are absorbed using direct labour hours.
4. Budgeted selling prices include an allowance for planned discount promotions.

Tax regime in Keeland

- The corporate income tax rate to be applied to taxable profits 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
 - impairment charges
 - entertaining expenditure
 - donations to political parties
 - taxes paid to other public bodies.
- Tax depreciation allowances are available on all items of plant and equipment (including computer equipment) at a rate of 25% per year on a reducing balance basis. A full year's allowance is available in the year that the asset is acquired. Tax depreciation allowances are not available for property assets.
- Tax losses can be carried forward indefinitely to offset against future taxable profits from the same business.
- Sales tax is charged on all standard rated goods and services at a rate of 15%. Tax paid on inputs into a business can be netted off against the tax charged on outputs from that business. All businesses are required to pay over the net amount due monthly.



Operational Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.

Click **Next** to start the test.

This examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	45	1	4	(a) 28% (b) 20% (c) 24% (d) 28%
2	45	1	3	(a) 48% (b) 32% (c) 20%
3	45	1	3	(a) 32% (b) 32% (c) 36%
4	45	1	3	(a) 40% (b) 36% (c) 24%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during the examination by clicking on the Pre-seen button.

Reference Material

Pre-seen

Today is 1 June 2024. The management of Kanann is considering expanding the company's range of saddles by developing one made of vegan leather.

Lois Gammell, Finance Manager, calls you into her office and says:

"Vegan leather has never previously been used for the purpose of making saddles. Jack Newman, Production Manager, has found a vegan leather that he thinks could be used to make saddles, but it requires suitability testing to see if it can withstand the stresses and strains saddles are subjected to. We have three options to carry out the testing. One option is to pay Keeland University to do it using their staff and facilities. The other two options require setting up testing facilities at our premises and then either training our existing product testing staff or recruiting an external team of product testers, using a recruitment consultant. The external team are qualified to complete the testing but have no knowledge of the equestrian industry. We are not sure how long the testing would take.

Jack has shown the options on a decision tree (Diagram 1, which I will give you shortly), so that they can be presented to the Senior Management Team (SMT).

Please prepare a briefing note for the SMT which explains:

- How the decision tree should be used to financially evaluate which option should be selected to complete the suitability testing on the vegan leather.

(sub-task (a) = 28%)

- The limitations of using the decision tree for this decision.

(sub-task (b) = 20%)

The development of the vegan leather saddle may impact our liquidity in the short term. Schedule 1 (which I'll give you shortly) includes our current estimates of the cash outflows and duration of this project. KM Bank has offered us either an overdraft or a loan whose terms have also been summarised in Schedule 1. To minimise the amount of external funding needed, we are also considering delaying payments to suppliers.

Please also include in your briefing note an explanation of:

- The appropriateness of the overdraft and the bank loan as methods to provide additional liquidity, if required, in the development phase of the project.

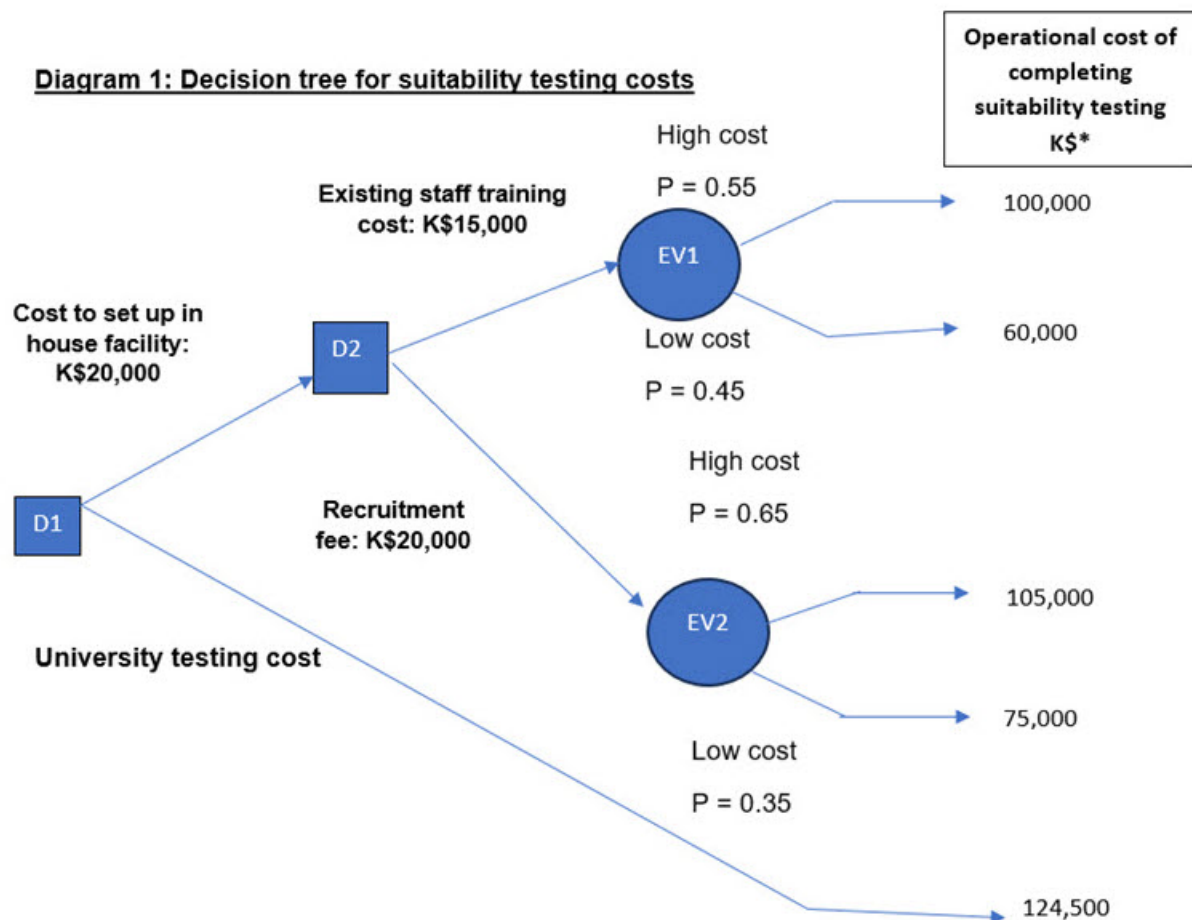
(sub-task (c) = 24%)

- What financial and non-financial factors should be considered before we delay payments to our suppliers."

(sub-task (d) = 28%)

Lois Gammell then gives you Diagram 1 and Schedule 1, which can be found by clicking on the Reference Material button above.

Diagram 1: Decision tree for suitability testing costs



Expected Values

EV1 K\$82,000

EV2 K\$94,500

* These costs exclude the set up costs of the in-house facility and training costs

Schedule 1: Information about vegan leather project and potential funding**Extract from vegan leather saddle project plan:**

The project is expected to be completed in approximately 12 months, from the initial proposal (Month 1) to the product being released into the market (Month 12). However, this is dependent on completion of relevant suitability testing and market research. The total cash outflow of the project during the estimated development phase is expected to be no more than K\$300,000. The outflows are forecast to be paid in the following months.

Month	3	6	9	11	12
Cash outflow K\$	30,000	110,000	50,000	90,000	20,000

To aid cashflow during the development phase of the new product, we may require additional finance. The source of this finance has not yet been confirmed.

Extract from offer letter from KM Bank:


We are happy to offer you the following facilities:


- Commercial Bank Loan of K\$300,000. Capital and interest on the loan would be repayable monthly over 1.5 years. Interest on the loan would be charged at 3% over the National Bank of Keeland Base Rate, which currently stands at 5%.
- An overdraft facility of K\$90,000. Interest would be charged at a rate of 4% over the National Bank of Keeland Base rate, which currently stands at 5%. This agreement would be reviewed in 6 months and will last for 12 months. Standard overdraft terms apply.


Reference Material


Pre-seen


Write the briefing note requested by Lois Gammell in the box below.











































Paragraph ▾


























Reference Material

Pre-seen

It is now November 2024. The suitability testing for the leather has been completed.

From: Lois Gammell, Finance & HR Manager

To: Finance Officer

Subject: Machine costing system and possible appointment

During the material suitability testing, it became apparent our existing cutting machines will not work with the new vegan leather. So, we will need to sell some of our existing cutting machines and buy new cutting machines which will work with vegan leather. Initially, IXO Engineers will buy one of our old machines (IXO G1) and sell us a new machine (IXO G3) to replace it. The relevant invoices for the machine sale and purchase are attached to this email in Schedule 1. The IXO G1 machine, which is being sold, has a carrying amount of K\$25,000 on 30 November and is subject to monthly depreciation of K\$500. This is the first time we have replaced machines for some time and Rina Gomez, Deputy Managing Director, would like to know how the purchase and sale of the machines will be recorded in the financial statements.

Please prepare a briefing note for Rina which explains:

- How both the sale of the IXO G1 and the purchase of the IXO G3 will be recorded in the financial statements for the year ending 31 December 2024.

(sub-task (a) = 48%)

Rina has reviewed the vegan saddle project and would like to bring in a management accountant on a fixed contract to work solely on this, but John Kanann, Managing Director, is not convinced this is necessary.

Please also include in your briefing note an explanation of:

- How information prepared by a management accountant would support the needs of management for the vegan saddle project.

(sub-task (b) = 32%)

Rina also wonders if we would make better short-term decisions if we changed the company's overall costing system to marginal costing rather than the absorption costing one we have always used.

Please also include in your briefing note an explanation of:

- The principles upon which we should base short-term decisions and whether changing to a marginal costing system would help us to make better short-term decisions.

(sub-task (c) = 20%)

Lois Gammell
Finance & HR Manager
Kanann

The attachment to the email can be found by clicking on the Reference Material button above.

Schedule 1: Invoices

KANANN
Invoice for the sale of IXO G1 Cutting machine

Customer: IXO Engineers

Date: 30 November 2024

Invoice Number: K67903

Detail	K\$
Agreed price IXO G1 Machine	20,000
Removal costs (to be performed by IXO)	(1,000)
Total Price	<u>19,000</u>

Credit terms: Payment due 28th December 2024

Note

1. The machine will be disassembled on 15 December 2024 and removed from site on 28 December 2024.

IXO ENGINEERS
Proforma Invoice for sale of IXO G3 Cutting machine

Customer: Kanann

Date: 10 December 2024

Invoice Number: IXO75246

Detail	Notes	KS	K\$
Price of IXO G3 Machine		106,000	
Less trade discount		(2,000)	
			<u>104,000</u>
Installation	1	2,000	
Scheduled delivery cost 27 December 2024		1,500	
Testing		500	4,000
Total price			<u>108,000</u>


Notes


1. Installation and testing takes 24 hours from delivery.


Reference Material


Pre-seen


Write the briefing note requested by Lois Gammell in the box below.











































Paragraph ▾


























Pre-seen

Today is 1 December 2024. It was decided that a dedicated management accountant for the new vegan leather saddle project would not be appointed.

Lois Gammell, Finance & HR Manager, calls you into her office and says:

"Before we move to full production of the new vegan leather saddle, John Kanann, Managing Director, and Rina Gomez, Deputy Managing Director, want to put together budgets for the new product and have asked us to produce a briefing note for them on several issues. John is concerned that our incremental budgeting system doesn't reflect the importance of the dynamic business environment, which we feel is crucial for us for reputational reasons. John has been speaking to his daughter, Freya, and she suggested we consider adopting a beyond budgeting approach to monitor and control the production of the new saddle.

Please prepare a briefing note for the Senior Management Team (SMT) which explains:

- How beyond budgeting differs from our current system of incremental budgeting and whether it would be beneficial for Kanann to use beyond budgeting across the business.

(sub-task (a) = 32%)

However, for next year, we will continue to use incremental budgeting and the new budgets will be set shortly. The changes seen in the business with the introduction of new machinery and a new product have caused unease among staff. Previously, team managers put together budgets for their own areas. However, Rina is considering a top-down approach this year to ensure production is set at required levels to incorporate the new vegan saddles. She is also keen to ensure product quality is maintained and would like to introduce key performance indicators (KPIs) to achieve this.

In your briefing note, please:

- Explain the impacts that imposing a budget could have on team managers.
- Suggest three KPIs we can use to monitor product quality for the vegan saddles. For each KPI, please explain how it can be measured and why it would be appropriate."


(sub-task (b) = 32%)


(sub-task (c) = 36%)


Reference Material


Pre-seen


Write the briefing note requested by Lois Gammell in the box below.











































Paragraph


























Reference Material

Pre-seen

It is now May 2025 and the new vegan leather saddle is in production.

Lois Gammell, Finance & HR Manager, calls you into her office and says:

"I was about to produce a variance report for the first month's production of the vegan leather saddle, but I think there are some issues we need to consider. The design and dimensions of the new saddle is based on the traditional Comet saddle, and it could be thought that the variance report could be based on the standard cost card for the Comet. But I do not think it would be appropriate to use the standard cost card for the Comet. There are some issues, particularly relating to cutting, which need further consideration and I would like to hear your views. I have shown the available information in Table 1, which I will give to you shortly.

The standard cost for the Comet shows that one butt of leather is used per saddle. A butt is 1.5 square metres (1.5 metres x 1 metre) and cutting the butt for a Comet saddle is strictly on a one-to-one basis, with one butt for each saddle. Cutting the pieces needed from a butt is very labour intensive and there are a lot of off-cuts. For the new vegan leather saddles, the "leather" is supplied in rolls of 3 metres wide and 15 metres long. The software in the new machine optimises the use of the leather based on the amount of leather available per set-up and matches to the specific output required.

Machinery costs were previously accounted for as part of the variable and fixed production overheads.

Please prepare a report for me which explains:

- Issues we should consider in using the Comet as a basis for creating a standard cost card for vegan saddles to allow us to report appropriate variances. Please focus on material usage, labour efficiency and machinery efficiency and capacity.

(sub-task (a) = 40%)

The Keeland government released some economic data last week. It shows Keeland is experiencing relatively high levels of raw material price and wage inflation. John Kanann, Managing Director, is concerned that this economic data could have a significant impact on our planned results. Our budgeted contribution to sales ratio for 2025 is 53%.

Please prepare a briefing note for John Kanann to explain:

Reference Material

Pre-seen

It is now May 2025 and the new vegan leather saddle is in production.

Lois Gammell, Finance & HR Manager, calls you into her office and says:

"I was about to produce a variance report for the first month's production of the vegan leather saddle, but I think there are some issues we need to consider. The design and dimensions of the new saddle is based on the traditional Comet saddle, and it could be thought that the variance report could be based on the standard cost card for the Comet. But I do not think it would be appropriate to use the standard cost card for the Comet. There are some issues, particularly relating to cutting, which need further consideration and I would like to hear your views. I have shown the available information in Table 1, which I will give to you shortly.

The standard cost for the Comet shows that one butt of leather is used per saddle. A butt is 1.5 square metres (1.5 metres x 1 metre) and cutting the butt for a Comet saddle is strictly on a one-to-one basis, with one butt for each saddle. Cutting the pieces needed from a butt is very labour intensive and there are a lot of off-cuts. For the new vegan leather saddles, the "leather" is supplied in rolls of 3 metres wide and 15 metres long. The software in the new machine optimises the use of the leather based on the amount of leather available per set-up and matches to the specific output required.

Machinery costs were previously accounted for as part of the variable and fixed production overheads.

Please prepare a report for me which explains:

- Issues we should consider in using the Comet as a basis for creating a standard cost card for vegan saddles to allow us to report appropriate variances. Please focus on material usage, labour efficiency and machinery efficiency and capacity.

(sub-task (a) = 40%)

The Keeland government released some economic data last week. It shows Keeland is experiencing relatively high levels of raw material price and wage inflation. John Kanann, Managing Director, is concerned that this economic data could have a significant impact on our planned results. Our budgeted contribution to sales ratio for 2025 is 53%.

Please prepare a briefing note for John Kanann to explain:

- How and why our standards and budgets should be revised, given the expected rising inflation, to ensure their relevance for planning and control purposes at our monthly meetings.

(sub-task (b) = 36%)

- How inflation and the purchase of new machinery will impact operational gearing, planned break-even point and profits."

(sub-task (c) = 24%)

Lois Gammell then sends you Table 1, which can be found by clicking on the Reference Material button above.

Table 1: Cutting data for Month 1 for Vegan Leather saddle production

	Notes	Expected (based on Comet standards)	Actual (for Vegan Leather saddle)
Saddles (units)		50	50
Leather (square metres)		75	58
Labour (hours)	1	300 (50 units at 6 hours)	35
Set-ups	2	-	2
Machine time (hours)	3	-	13

The expected column figures are based on the Comet standard cost card.


Notes:


1. The actual labour hours comprise 8 hours for set-ups (4 hours each) and 27 hours for sorting the cut pieces.
2. A set-up is needed whenever a roll is mounted on the machine. The set-up involves mounting the roll and inputting the saddle design and dimensions and the amount of leather available for that run into the machine's software.
3. Machine time was not previously identified separately. The actual time is the time that the machine was cutting.
4. The Comet charges variable and fixed overheads to the product based on labour hours.


Reference Material


Pre-seen


Write the report and briefing note requested by Lois Gammell in the box below.











































Paragraph ▾




























Thank you for completing the Operational Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Operational Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.

Click **Next** to start the test.

This examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	45	1	3	(a) 20% (b) 48% (c) 32%
2	45	1	3	(a) 36% (b) 20% (c) 44%
3	45	1	3	(a) 44% (b) 36% (c) 20%
4	45	1	3	(a) 28% (b) 32% (c) 40%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during the examination by clicking on the Pre-seen button.

Reference Material

Pre-seen

Today is 1 June 2024. Kanann wants to manufacture and sell bridles in addition to its range of saddles. To enable it to manufacture bridles, Kanann is currently negotiating the purchase of some of the assets of Bard, an established bridle manufacturer. Kanann will buy Bard's machines, inventory and trade receivables. Bard's machines include some that are for the manufacture of the buckles, which are a component of each bridle.

You receive the following email:

From: Rina Gomez, Deputy Managing Director
To: Finance Officer
Subject: Machinery, buckles and receivables

One of the machines we intend to purchase from Bard is the BL23. I have included details of the costs we expect to incur relating to this machine in Table 1 (attached).

Please prepare a briefing note for me which explains:

- How each of the costs shown in Table 1 should be recognised in the financial statements for the year ending 31 December 2024 if we buy this machine from Bard.

(sub-task (a) = 20%)

We will face new challenges by producing bridles and buckles whilst continuing to make saddles. To ease the pressure and manage the possibility of scarce resources, we are considering whether we should manufacture the buckles ourselves or buy them from an external supplier. The bridles use different sizes of buckles on the throat lash, nose band and two cheek pieces. I have included our estimated production costs and the buy-in prices of each buckle in Table 2 (attached).

Please also include in your briefing note an explanation of:

- The additional financial and the non-financial information we should consider when deciding whether to produce or buy-in the buckles.

(sub-task (b) = 48%)

Table 3 (attached) shows some information about Bard's four biggest trade receivable account balances. We want to continue selling to Bard's customers, but we want them to pay on time. We have always had good relationships with our customers and have not needed a monitoring system for receivables. However, it appears that we need one for the customers we will be taking over from Bard. To improve collections, I want to introduce an age analysis of outstanding trade receivables for those customers.

Please also include in your briefing note an explanation of:

- How introducing an age analysis of outstanding trade receivables may help us to monitor trade receivables and improve collections from what were Bard's customers, with reference to the information in Table 3.

(sub-task (c) = 32%)

Rina Gomez
Deputy Managing Director
Kanann

The attachments to the email can be found by clicking on the Reference Material button above.

Table 1: Details of expected costs for purchasing BL23

Costs	Note	K\$
Purchase Price		30,000
Delivery	1	4,000
Servicing	2	500
Levelling of factory floor	3	1,000
Installation training for existing staff	4	900

Notes:

1. The delivery date will be finalised after completion of the purchase of Bard's assets.
2. This is the cost of an annual service which is required to maintain the warranty with the machine.
3. This is required to allow the machine to be used.
4. This is training for existing Kanann staff to be able to undertake the installation of the BL23 machine.

Table 2: Summary of production and buy-in costs for bridle buckles

Buckles	Throat lash K\$ per 100	Nose band K\$ per 100	Cheek piece K\$ per 100
Production Costs			
Direct material	90.00	120.00	68.00
Direct labour	125.00	137.00	90.00
Variable production overhead	49.00	53.00	35.00
Total variable production costs	264.00	310.00	193.00
Fixed production overhead	114.00	125.00	82.00
Total production costs	378.00	435.00	275.00
Buy-in price	358.00	406.00	185.00

Note:

The production overheads have been absorbed using the production overhead absorption rates calculated when we produced the 2024 budgets.

Table 3: Top four Bard trade receivable account balances at 31 May 2024

Number	Name	Credit limit K\$	Total Balance K\$	Balance over 90 days K\$
AR0001	Argent Equestrian Supplies	20,000	24,000	2,000
TE0002	Total Equine	15,000	14,000	11,000
SA0004	Smith Agricultural	11,000	9,000	500
ZH0001	Zandy Horse Shops	10,000	7,000	3,000


Notes:


1. Argent Equestrian had arranged with Bard to pay its debt at K\$3,000 per month.
2. The normal credit period given by Bard is 30 days.


Reference Material


Pre-seen


Write the briefing note requested by Lois Gammell in the box below.











































Paragraph ▾


























Reference Material

Pre-seen

It is now August 2024. The purchase of Bard's assets has been delayed due to concerns about the value of the inventory which is being purchased.

From: Lois Gammell, Finance & HR Manager

To: Finance Officer

Subject: Purchase of Bard inventory, short-term investment and budget planning

As part of the due diligence process to buy Bard's assets, we have received the information included in Table 1 (attached) detailing some items in Bard's inventory. We want to open our negotiations for purchasing Bard's inventory using the carrying amount that would be included in a statement of financial position. However, I am concerned that the values given to us, in Table 1, are not correct and would like you to review them.

Please prepare a briefing note which explains:

- The value at which the inventory in Table 1 would be stated if it was measured in accordance with IAS 2.

(sub-task (a) = 36%)

The purchase of Bard's assets will be completed, but with the queries we have raised, there may be a delay in completing the purchase. If there is a delay, we expect it to be for at least 2 months, but it might be longer. Therefore, we are considering investing the cash raised to buy Bard's assets in a short-term investment. We have received information about two alternatives, arranging our own certificate of deposit and a bank deposit account. I have included a summary of the relevant information in Table 2, attached.

Your briefing note should also explain:

- The appropriateness of each of the two short-term investment methods, a certificate of deposit and a bank deposit account, for the deposit of surplus funds.

(sub-task (b) = 20%)

This is the first time we have produced bridles and, as a result, there is increased uncertainty around sales and production volumes and therefore the level of resources required. John Kanann's daughter, Freya, has made some suggestions about how we might change our budgeting to better reflect this uncertainty. She has suggested we might want to change to rolling budgets rather than our usual incremental budgeting system.

Please also include in your briefing note an explanation of:

- Our current system of incremental budgeting and how changing to rolling budgets for bridle production would improve our planning, including planning for resource acquisition and utilisation.

(sub-task (c) = 44%)

Lois Gammell
Finance & HR Manager
Kanann

The attachments to the email can be found by clicking on the Reference Material button above.

Table 1 Table 2

Table 1: Bard Inventory examples:

Item	Note	Cost K\$	Net realisable value (NRV) K\$
250 brown snaffle bridles	1	23,000	25,000
Speciality Leather	2	10,000	12,000
100 black double bridles	3	16,000	19,000

Notes:

1. Selling and distribution costs of K\$3,000 have not been included in this NRV.
2. The specialty leather was purchased in January 2024 for a profitable one-off special order for bridles. The leather is being processed and assembled, but the order is not yet complete. There is no other use for this specialty leather in the business. The cost of the same amount of unprocessed specialty leather in August 2024 is K\$8,000.
3. The black double bridles were produced to a customer's specification for export to Deeland. However, it has now been found that to meet health and safety standards in Deeland, remedial work on the stitching of K\$3,500 is required. The customer has agreed to pay 60% of the cost of the additional work. No remedial costs are currently reflected in the NRV figure.


**Table 2: Summary of cash available for investment:**


Details	Notes
Amount	K\$300,000
Time available for investment	Up to 180 days
How quickly will the cash be made available to our company	Within 5 days of request


Reference Material


Pre-seen


Write the briefing note requested by Lois Gammell in the box below.











































Paragraph


























Reference Material

Pre-seen

Today is 8 December 2024. The Bard asset purchase is complete. Bridle production has been taking place for the last 2 months. It was agreed that buckles for the bridles would be bought in.

Lois Gammell, Finance & HR Manager, calls you into her office and says:

"I am meeting John Kanann, Managing Director, later this week to discuss bridle production costs and a purchasing issue that I have identified.

He wants to discuss the labour variances for bridles and the fixed production variances for the whole facility for the 2 months to 30 November 2024. I have calculated the variances but, unfortunately, I have not had time to complete the commentary to accompany them. The variances and associated notes are included in Schedule 1, which I will email to you shortly.

John also wants to display some KPIs in the factory to provide visible and easily understood feedback to our employees about performance relating to labour efficiency, machine utilisation and product quality.

Please prepare a report to John Kanann which explains:

- How the labour variances for bridle production have been calculated, what they mean and possible reasons why they have occurred. Please also explain what the fixed production overhead variances mean and how bridle production will have impacted these variances. **(sub-task (a) = 44%)**
- Suggestions for one KPI for each of labour efficiency, machine utilisation and product quality. For each of the KPIs, please explain how it would be measured and why it would be appropriate. **(sub-task (b) = 36%)**

We are currently being approached by potential new suppliers for the bridle business. Some of the offers being made seem too good to be true. Investigating one supplier, I found that whilst they offered leather, suitable for bridle production, for a very low price, there was evidence of some poor employee practices. I think it is important we have a company position on this so I will also be discussing this issue with John Kanann.

Please also include in your report an explanation of:

- The part ethics should play when choosing a supplier." **(sub-task (c) = 20%)**

Lois Gammell sends you Schedule 1, which can be found by clicking on the Reference Material button above.

Schedule 1: Variances and information**Bridle variances for the 2 months to 30 November 2024**

Labour variances	K\$
Rate	1,800 adv
Efficiency	1,200 adv

Kanann production facility variances for the 2 months to 30 November 2024

Fixed production overhead variances	K\$
Expenditure	11,550 adv
Capacity	34,800 fav
Efficiency	1,300 fav

Notes:

1. Additional staff above those budgeted for were needed to produce bridles. However, we were only able to recruit four of the five additional staff we needed.
2. Once recruited, the new staff had to be trained to operate the machines purchased from Bard.
3. Demand was higher than expected for the bridles. This, and the fact we were unable to recruit the fifth member of staff, meant that overtime had to be worked to ensure we had sufficient inventory of each of the different styles of bridles in our range. Overtime premium is included as part of variable production overhead.
4. The fixed production overhead variances are for all of Kanann's Production Facility.
5. The fixed production overhead variances are based on the factory-wide budget for 2024 and the resultant fixed production overhead rate of K\$23.10 per labour hour.

Reference Material

Pre-seen

Write the report requested by Lois Gammell in the box below.

x_z

x^2

I_x

Paragraph

Reference Material

Pre-seen

It is now March 2025 and Kanann is looking at improving its costing system and sales forecasting to support a further expansion in the product range.

Rina Gomez, Deputy Managing Director, calls you into her office and says:

"I have just been talking to Freya about the success of the bridles we introduced to our product range. We both concluded that our reputation is growing and we are appealing to a wider market. We discussed the idea of expanding our product range further to include bespoke saddles and using materials other than leather. Such changes in our product range would call for new production processes and more machinery.

I commented on the importance of accurate costing information when reviewing the profits of the products we sell. Freya was less than complimentary about our existing costing system. She pointed out that, in her opinion, a standard absorption costing system based on factory-wide overheads and factory-wide labour hours is of little use to us given our diversifying product lines and changing production processes. She suggested that we should set up cost centres and use specific absorption rates, and possibly move to an activity-based costing (ABC) system. She said such systems would have benefits for our business in addition to profit analysis.

I have limited knowledge of costing systems and do not fully understand Freya's comments. I would like to know how such costing systems would work and what their benefits would be.

Please send me a report which explains:

- Our current cost system and the problems that arise from using it.

(sub-task (a) = 28%)

- The benefits of setting up cost centres with individual absorption rates and the additional benefits of activity-based costing.

(sub-task (b) = 32%)

We have now recruited sufficient labour and our production levels of bridles is not constrained by a scarce resource. Therefore, we need to forecast future sales levels of bridles. Looking through Bard's historical records, I came across the graph in Table 1, which I will give you shortly. As we are new to selling bridles, I have some concern about how accurate our sales estimates will be and I wonder if we can use the information in the graph to help us with our estimates. Freya suggested using time series analysis and four-point centered moving averages.

Please also include in your report an explanation of:

- The data in the graph and the difficulties we would face in applying time series analysis and four-point centered moving averages to this data to forecast quarterly sales volumes for bridles."

(sub-task (b) = 40%)

Rina hands you Table 1, which can be found by clicking on the Reference Material button above.

Table 1: Graph of bridle sales taken from the records of Bard




Note:


1. Bard's quarter 22 was the quarter ending September 2024.


Reference Material


Pre-seen


Write the report requested by Rina Gomez in the box below.











































Paragraph




























Thank you for completing the Operational Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Operational Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.

Click **Next** to start the test.

This examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	45	1	3	(a) 36% (b) 36% (c) 28%
2	45	1	3	(a) 28% (b) 28% (c) 44%
3	45	1	2	(a) 52% (b) 48%
4	45	1	3	(a) 32% (b) 36% (c) 32%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during the examination by clicking on the Pre-seen button

Reference Material

Pre-seen

Today is 1 June 2024. Kanann is considering manufacturing bespoke (made to measure) saddles.

John Kanann calls you into his office and says:

"My daughter, Freya, has been working with a design team at Keeland University on Project Pegasus. The aim of the project is to allow us to make bespoke, made-to-measure saddles. This will be the first time that we have sold directly to horse owners.

I have included extracts from the project team's report, which explain the background to Project Pegasus and its outcomes in Schedule 1, which I will give you shortly. The desired project outcomes include the production of a handheld electronic device which measures a horse's back and the development of an app that will be used by a newly appointed team of saddle fitters to send these measurements to the cutting machines. Kanann will build the measuring device and develop the app. The saddle fitters will be trained to use the measuring device and the app, and will travel throughout Keeland to visit horse owners, by appointment, to generate sales of bespoke saddles. The device and app will only be used by Kanann employees. This is the first time we have been involved with digital technology in this way. I would like to understand more about costing the app and how we can control the production costs for the bespoke saddles.

Please send me a report which explains:

- The difficulties we need to consider when costing the development and use of the app.
- The difficulties we face in controlling the full production cost of bespoke saddles excluding the costs of the app.

(sub-task (a) = 36%)

(sub-task (a) = 36%)

Producing bespoke saddles will place a lot of pressure on the company. We are using digital technology for the first time as well as computer-controlled cutting machines. These, and the usual pressures associated with introducing any new product, will impact on our budgeting process. Freya mentioned that perhaps "big data" could be of use. I am unaware of what big data is and how, or even if, it would be of benefit to us when we are producing the sales budgets for all our products.

Please also include in your report an explanation of:

- Big data and if it would be of benefit or not when producing our sales budgets."

(sub-task (c) = 28%)

John Kanann gives you Schedule 1, which can be found by clicking on the Reference Material button above.

Schedule 1: Extracts from the report by Keeland University**Project Pegasus****Development of Bespoke Saddle 3D measuring device and associated App****Background (page 3):**

Traditionally, making a bespoke saddle starts with a fitter moulding pliable metal rods to a horse's back. The resultant shape of the rods is then used to make a paper template. The paper template is sent through the mail to the manufacturer who then uses it as the basis for cutting leather and, most importantly, padding the saddle to provide a custom fit to the horse's back.

Issues (page 6):

The traditional method is not very accurate (meaning the saddle produced will not fit as well as it could) and is very time consuming (visiting the horse, measuring the horse, sending the template through the mail, interpretation of the template).

Outcomes (page 15):

1. An electronic measuring tool will produce a 3D scan of a horse's back in 4 minutes, which can be sent via an app directly to Kanann's production facility.
2. An app which sends the measurements from the 3D scan directly to the cutting machines.
3. Kanann will purchase and install new computer-controlled cutting machines. They will receive data from the app and will cut pieces of leather that, when stitched together and padded, will fit specifically to the horse.

Anticipated benefits (page 17):

1. More accurate measurements.
2. Reduced time needed to measure a horse (travel to the horse still required).
3. Immediate communication of measurements to the machinery.
4. New cutting machinery reduces the labour-intensive aspect of cutting, speeding up production.


Next steps for the project (page 18):


Pilot the measuring device and develop the required app.
Purchase computer-controlled cutting machines.


Reference Material


Pre-seen


Write the report requested by John Kanann in the box below.











































Paragraph ▾


























Reference Material

Pre-seen

It is now 5 January 2025.

You receive the following email:

From: Lois Gammell, Finance & HR Manager**To:** Finance Officer**Subject:** Replacement of leather-cutting machines and forecasting sales volume of bespoke saddles

We are currently replacing two of our cutting machines, the ZZ3 and the AX1, with machines which can be integrated with the app.

- In the financial statements to 31 December 2023, the ZZ3 was classified as property, plant and equipment, but met the criteria for an asset held for sale on 30 November 2024 when it had a carrying amount of K\$18,000. We sold the machine back to the original manufacturers, LLL Engineers (LLL), after they inspected it. The agreement for sale was completed on 30 December 2024. I have included details of the offer in Schedule 1 (attached).
- The AX1 was sold on 30 December 2024. The AX1 was purchased on 30 December 2018 for K\$80,000 and it was sold for K\$21,000. Draft corporate income tax calculations, in Table 1 (attached), show the AX1 generated a balancing charge of K\$6,761.

Please prepare a report for me, using the Tables provided, which explains:

- How the sale of the ZZ3 would be recorded in the financial statements for the year ended 31 December 2024. **(sub-task (a) = 28%)**
- The difference between accounting depreciation and tax depreciation with reference to Table 1. Please also explain how the AX1 will be treated in both the financial statements and the corporate income tax calculation for the year ended 31 December 2024. **(sub-task (b) = 28%)**

Rina is worried about forecasting sales volumes for the bespoke saddles. Adding to her concern is that the Keeland Statistics Bureau has predicted that there will be 12% inflation, which will cause increased economic uncertainty. She has suggested that we should use time series analysis to forecast our sales volumes.

Please also explain in your report:

- How we could use time series analysis to predict sales of our saddles, including sales of the new bespoke range and any difficulties we would face. **(sub-task (c) = 44%)**

Lois Gammell
Finance & HR Manager
Kanann

The attachment to the email can be found by clicking on the Reference Material button above.

Schedule 1: Extract from the Inspection report for ZZ3 Cutting machine**LLL Engineers****Offer to purchase the ZZ3 Cutting Machine****Location: Kanann****Model: ZZ3 Cutting Machine****Date: 1 December 2024****Conclusion**

Having recently inspected the ZZ3 cutting machine, we are willing to purchase it for K\$20,000. This offer will remain open for 30 days from the date of this report. If agreed, dismantling costs of K\$3,000 will be deducted from the above offer as part of transaction. Dismantling will take place in January 2025.

Table 1: AX1 Cutting Machine Tax allowances and depreciation summary

Per Kanann tax calculation	Note	K\$
Purchase price on 30 December 2018		80,000
Less total tax depreciation allowance	1	(65,761)
Written down value per corporate income tax calculation		14,239
Balancing charge		5,761

Per Kanann financial statements	Note	K\$
Purchase price on 30 December 2018		80,000
Less total accounting depreciation	2	(48,000)
Carrying amount per financial statements		32,000


Notes:


- Tax depreciation is calculated at 25% reducing balance per year. This is the total tax depreciation allowed in the corporate income tax calculation between 2018 and 2024.
- Accounting depreciation is calculated at 10% straight line per year. This is the total accounting depreciation for the AX1 between 2018 when purchased and 2024 when sold.


Reference Material


Pre-seen


Write the report requested by Lois Gammell in the box below.











































Paragraph ▾


























Reference Material

Pre-seen

Today is 10 February 2025. A pilot scheme for the bespoke saddle project was successful. Kanann is looking to appoint a saddle-fitting team. They will use the new measuring device and the app.

Ella Beard, Sales Manager, calls you into her office and says:

"We need to appoint a team of saddle fitters. They will be trained to use the measuring device and the app, and then they will travel throughout the country to visit horse owners to generate sales of bespoke saddles. They will be responsible for the sale of bespoke saddles given that every saddle sold will be unique and will necessitate measuring a specific horse. I am not sure how many people we will need in the team.

Lois Gammell, Finance & HR Manager, has produced a pay-off table to help with this decision. The table shows the additional contribution that could be earned, based on estimates of the weekly demand, by four different sized teams. Given the risks involved, she has also produced a statistical analysis of the results using probabilities for the demand levels. I will give you Table 1 which includes the payoff table and the statistics shortly. I have never used this type of risk analysis before and did not understand what Lois meant when she said the use of the statistics would depend on the risk profile of the decision taker.

As this is a new project, I want to formally monitor the performance of each member of the saddle-fitting team. I am keen to use a dashboard including Key Performance Indicators (KPIs), particularly in relation to sales and cost control.

Please write a report for me which:

- Explains the information in Table 1, how the size of the team chosen will be dependent on the risk profile of the decision taker. Please also explain the issues we should consider when using the statistical analysis in Table 1.

(sub-task (a) = 52%)

- Suggests three KPIs which could be used to monitor the performance of each individual saddle fitter in the team and one KPI which could be used to monitor cost control of each saddle fitter. For each KPI, please explain how it can be measured and why it would be appropriate."

(sub-task (b) = 48%)

Ella Beard gives you Table 1, which can be found by clicking on the Reference Material button above.


Table 1: Payoff table showing estimated additional contribution per week earned by bespoke saddle-fitting team


		Number of saddle fitters in team			
		3	5	8	10
Demand level	Probability	K\$	K\$	K\$	K\$
Low	0.13	(1,300)	(2,700)	(4,800)	(6,200)
Medium	0.33	1,100	4,500	7,200	5,800
High	0.47	1,100	4,500	7,600	6,200
Very high	0.07	1,100	4,500	7,600	11,000
Statistical Analysis					
Expected value		788	3,564	5,856	4,792
Standard deviation		807	2,421	4,123	4,435
Coefficient of variation		102%	68%	70%	93%


Reference Material


Pre-seen


Write the report requested by Ella Beard in the box below.











































Paragraph ▾


























Reference Material

Pre-seen

It is now 3 May 2025. The bespoke saddle-fitting team have been recruited and trained and have been operating for 2 months.

Lois Gammell, Finance & HR Manager, calls you in to her office and says:

"The new bespoke saddles have been selling for 2 months. Rina Gomez, Deputy Managing Director, will be leading a meeting of senior managers to review sales of the saddles and the impact on our business. She is keen to address some feedback that she has heard from the saddle-fitting team. They are saying that bespoke saddles may be having a negative effect on the sales of the Comet saddle, which is thought to be its closest substitute given that it was the top of our range of saddles. A low sales volume was used in the budget for the Bespoke saddles to reflect their recent introduction. I have calculated some variances, see Table 1, which I will give you shortly, for Rina to present at that meeting. Unfortunately, I have not had time to produce the commentary to accompany the variances.

I would like you to write a briefing note for Rina which explains:

- What each of the sales variances in Table 1 means, giving reasons why the variances have occurred and what the variances indicate about the relationship between the sales of Comet and Bespoke saddles.

(sub-task (a) = 32%)

I have also produced two infographics to show the cash flow operating cycles in the 10 months before the introduction of the bespoke saddles and in the 2 months after the introduction of the bespoke saddles. Rina will present these at the meeting. These are on Table 2, which I will give you shortly.

Please also include in your briefing note an explanation of:

- What a comparison of the infographics in Table 2 show and the impact of the new product on our working capital cycle and cash balance.

(sub-task (b) = 36%)

Another agenda item at the meeting is a discussion about growth. Rina is concerned about the effect that rapid growth and the demand for bespoke saddles compared to our existing saddle ranges might have on production and inventory decisions, as bespoke saddles are only produced following an order. She would like to understand possible problems before the meeting.

Please also include in your briefing note an explanation of:

- Why a high rate of growth in the sales of bespoke saddles could lead to operational problems for Kanann."

(sub-task (c) = 32%)

Lois Gammell gives you Table 1 and Table 2, which can be found by clicking on the Reference Material button above.

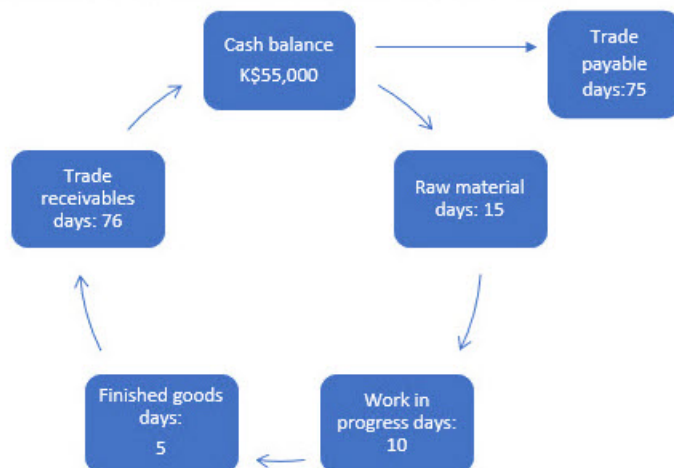
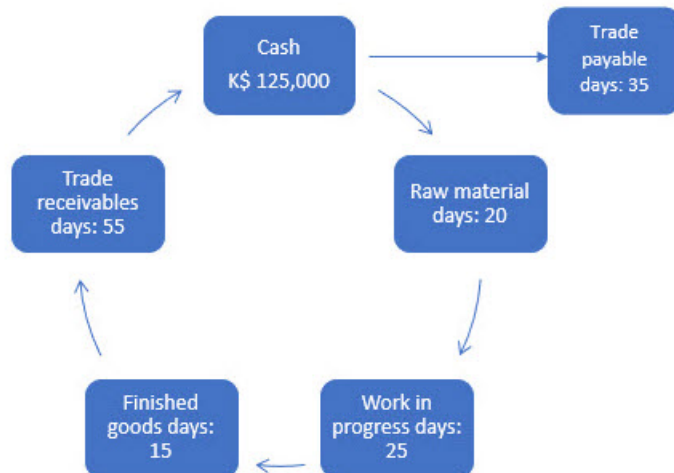
Table 1: Sales variances for Comet and Bespoke saddles March and April 2025

	Volume profit	Mix profit	Price
	K\$	K\$	K\$
Comet	14,400 fav	23,400 adv	6,800 adv
Bespoke	44,000 fav	28,600 fav	8,000 fav

Supporting information:

1. The individual units method was used for the mix variance.
2. Budgeted sales volumes for the period were: 60 Comet and 20 Bespoke saddles.
3. Fitters were given permission to grant discounts of up to 5% of the sales price to boost sales. These discounts were unplanned.
4. The variances were based on the standard cost cards for the saddles taken from our absorption costing system. Profits per saddle for the period were:


	Comet	Bespoke
Standard	K\$1,800	K\$2,200
Actual	K\$1,700	K\$2,450


Table 2: Working capital comparison infographic**Working capital cycle for 2 months to 30 April 2025: Total cycle 31 days****Working capital cycle for the 10 months to 28 February 2025: Total cycle 80 days**


Reference Material


Pre-seen


Write the briefing note requested by Lois Gammell in the box below.











































Paragraph




























Thank you for completing the Operational Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Operational Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.

Click **Next** to start the test.

This examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	45	1	3	(a) 28% (b) 24% (c) 48%
2	45	1	2	(a) 64% (b) 36%
3	45	1	2	(a) 52% (b) 48%
4	45	1	3	(a) 48% (b) 24% (c) 28%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during the examination by clicking on the Pre-seen button.

Reference Material

Pre-seen

Today is 1 June 2024. A range of specialist show-jumping saddles is due to be launched to the market on 1 July 2024. The range is called K-Jump.

You receive the following email:

From: Lois Gammell, Finance & HR Manager
To: Finance Officer
Subject: What-if analysis and key performance indicators

The budget for the K-Jump range for the period July to December 2024 has been drafted based on an average selling price of K\$6,000 per saddle. The Senior Management Team (SMT) is aware that companies that make specialist saddles tend to have a high level of brand loyalty and so is considering two options to increase sales volumes above those assumed in the draft budget. These options are to decrease average selling price by 10% or spend an additional K\$40,000 on promotion, and the SMT needs to decide which option to implement. I have prepared a what-if analysis (Table 1 attached) based on my assessment of how each of these options would impact sales volumes and fixed costs and the resulting sales revenue, contribution and profit.

Please prepare a briefing paper for the SMT which explains:

- The impacts of each of the options on budgeted revenue, contribution and profit for the K-Jump range.
- The factors we should consider before using this what-if analysis to decide which option to implement.

(sub-task (a) = 28%)

(sub-task (b) = 24%)

We will be producing K-Jump saddles to order rather than for inventory and will be using a new supplier for the trees. These trees will be made from carbon fibre, which will make them lighter and stronger than the trees we currently use in our general purpose saddles. Trees are an integral part of any saddle, but especially for show jumping where the forces exerted on the saddle are significant. Freya Kanann has suggested that we should start using key performance indicators (KPIs) across the business and so the SMT has asked for suggestions of measures that could be used for this new supplier.

Please include in your briefing paper to the SMT:

- Suggestions of four KPIs that are appropriate to monitor the performance of the new tree supplier. Please explain how each KPI would be measured and why it would be appropriate.

(sub-task (c) = 48%)

Lois Gammell
Finance & HR Manager
Kanann

The attachment to the email can be found by clicking on the Reference Material button above.

**Table 1: What-if analysis applied to the K-Jump range budget for July to December 2024**


	Draft Budget K\$000	Option 1: Decrease average selling price by 10%		Option 2: Increase promotional spend by K\$40,000	
		Revised budget K\$000	Impact	Revised budget K\$000	Impact
Sales revenue	450	486	+8%	518	+15%
Variable cost*	(165)	(198)	+20%	(190)	+15%
Contribution	285	288	+1%	328	+15%
Fixed cost	(150)	(160)	+7%	(190)	+27%
Profit	135	128	-5%	138	+2%


*It is assumed that the average variable cost per saddle will not change.


Reference Material


Pre-seen


Write the briefing paper requested by Lois Gammell in the box below.











































Paragraph ▾


























Reference Material

Pre-seen

It is now 5 June 2024 and you receive the following email:

From: Lois Gammell, Finance & HR Manager
To: Finance Officer
Subject: Capital expenditure and working capital

Due to an increase in demand for our general purpose saddles and in anticipation of producing the new K-Jump range, we have increased our production capacity. So far, we have built additional warehouse space, reorganised the main production facility and purchased a new industrial sewing machine. This has resulted in significant expenditure during 2024, detailed in Table 1 (attached). Rina Gomez, Deputy Managing Director, has asked for an explanation of how this expenditure will affect our financial statements for the year ending 31 December 2024.

Please prepare a briefing paper for Rina which explains:

- How each of the expenditure items in Table 1 will be initially recorded and subsequently measured in our financial statements for the year ending 31 December 2024.

(sub-task (a) = 64%)

The expansion of our production capacity and the launch of K-Jump is having a significant impact on our cash flow. We have so far funded the expansion with our cash resources. However, we now need to finance additional working capital, a promotional budget for K-Jump and additional spending on production equipment. Rina is keen to avoid a cash deficit arising by managing working capital more effectively. I have prepared a table showing our key working capital ratios as they stand at the end of May compared to at the end of last year (Table 2 attached).

Please include in your briefing paper to Rina an explanation of:

- The actions we could take to manage our working capital to avoid a cash deficit arising. Please include any potential implications of these actions.

(sub-task (b) = 36%)

Lois Gammell
Finance & HR Manager
Kanann

The attachments to the email can be found by clicking on the Reference Material button above.

Table 1: Expenditure expanding production capacity

Expenditure item	Note	K\$
New building	1	200,000
Redecoration of main production facility	2	12,000
New industrial sewing machine	3	86,000

Notes:

1. A new warehouse has been built at a total cost of K\$200,000. The building works were completed at the end of April, although the building cannot be used until the final inspection certificate is received, which is due on 1 July. We expect to have to replace the roof in 25 years, although the building itself will have a life of 50 years. The K\$200,000 includes K\$15,000 for architects and building inspectors.
2. We brought in external contractors to redecorate the main production facility for a fee of K\$12,000.
3. The new industrial sewing machine was imported. The K\$86,000 spent includes K\$1,200 import duty, K\$1,500 installation fees, K\$1,000 for insurance and K\$800 for training our employees to use the machine. The insurance contract runs from 1 April for 12 months. The manufacturers of the machine have told us that its useful life is 15 years, although we plan to replace it with an upgraded model in 5 years' time. The residual value of the machine is expected to be K\$40,000 in 5 years' time and K\$5,000 in 15 years' time. The machine was available for use on 1 May, although it didn't start to be used in production until 1 June.















**Table 2: Working capital ratios**












	At 31 May 2024 Days	At 31 December 2023 Days
Inventory days	65	55
Trade receivable days	51	54
Trade payable days	(55)	(50)
Operating cycle	61	59

Reference Material

Pre-seen

Write the briefing paper requested by Lois Gammell in the box below.



Paragraph 

Reference Material

Pre-seen

Today is 29 October 2024. The launch of the K-Jump range was very successful, principally as a result of Freya Kanann being the ambassador for the brand. As a result of this success, it was decided to launch an additional model of K-Jump, which happened on 1 October.

Lois Gammell, Finance & HR Manager, says the following to you:

"Jack Newman, Production Manager, has identified that we may have production constraints for next month's production of the K-Jump range. The leather that we use for two of the models in the range (K-Jump 1 & K-Jump 2) is a different quality grade to that used for other saddles and comes from a single supplier. This supplier has stated that they can only deliver 18 butts next month. In addition, hours on the new industrial sewing machine, which is the only sewing machine that is set up to be used for the K-Jump range, are also limited next month. I have produced a linear programming graph (Graph 1, which I'll send you shortly) to help decide how best to schedule production.

Please prepare a briefing paper for the Senior Management Team (SMT) which explains:

- The feasible region of Graph 1, how to use the graph to determine the optimal production plan and what that optimal production plan is. Please also explain the financial and non-financial factors we should consider before proceeding with this production plan.

(sub-task (a) = 52%)

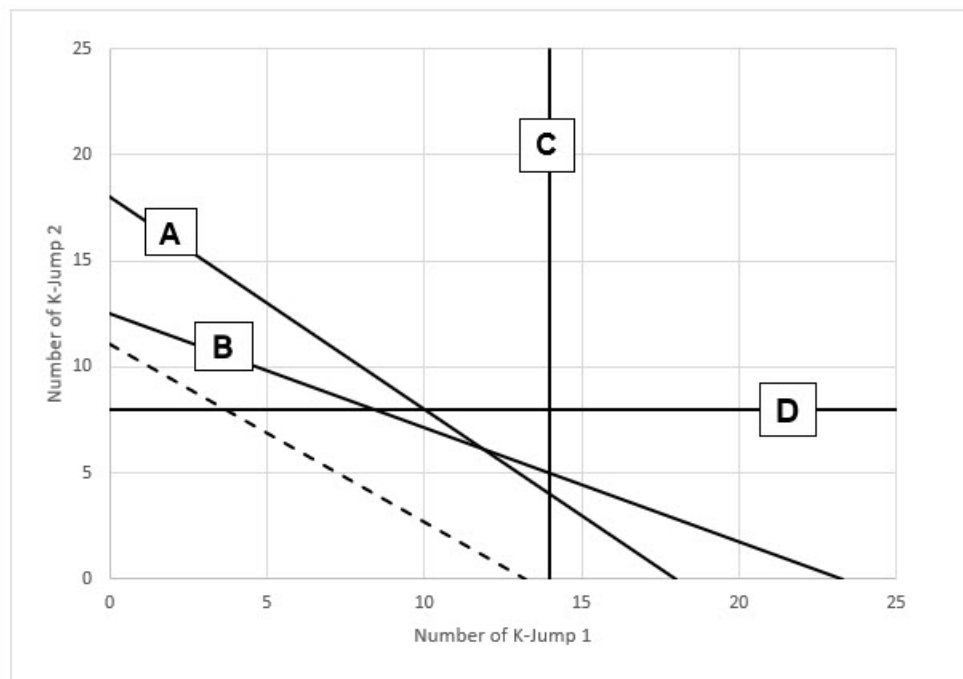
There are differences in how the K-Jump saddles and our general purpose saddles are produced, especially in relation to batch sizes in the Cutting Department. Freya Kanann learnt about activity-based costing (ABC) on her university course and has suggested that we consider using this approach. I have prepared a schedule of information about the Cutting Department (Schedule 1), which I will also send you shortly.

Please include in your briefing paper an explanation of:

- How an ABC approach would change how we absorb fixed production overheads and the impact that this would have on the costings for K-Jump saddles compared to general purpose saddles. Please illustrate your explanation with reference to the information in Schedule 1."

(sub-task (b) = 48%)

Lois Gammell sends you Graph 1 and Schedule 1, which can be found by clicking on the Reference Material button above.

Graph 1: Linear programming graph**Key to the graph:**

- Lines A and B show the availability of leather butts and sewing machine time respectively.
- Lines C and D are maximum demand constraints based on the orders for K-Jump 1 and K-Jump 2 respectively.
- The dotted line is an iso-contribution line.

Schedule 1: The process of leather cutting in the Cutting Department

The cutting machine is set up by the production workers for the type of saddle being produced.



The leather butts are delivered from the raw material warehouse by forklift truck for the batch being produced.



A single leather butt is manually loaded into the machine and the pieces are cut out in a single press.



The cut pieces are removed from the machine and the edges of each piece are finished individually on a edging machine.


Other information relating to leather cutting:


	K-Jump saddles	General purpose saddles
Batch size for cutting leather	2 saddles	10 saddles
Number of deliveries from raw material warehouse	1 per batch	1 per batch
Number of pieces cut per saddle	18	10
Machine hours per saddle	4 hours	2 hours
Direct labour hours per saddle	6 hours	4 hours


Reference Material


Pre-seen


Write the briefing paper requested by Lois Gammell in the box below.











































Paragraph ▾


























Reference Material

Pre-seen

It is now January 2025. Sales for all of Kanann's saddle ranges (including K-Jump) are continuing to grow and the company has further increased production capacity by investing in more new equipment and employing more direct labour.

You receive the following email:

From: Lois Gammell, Finance & HR Manager

To: Finance Officer

Subject: Direct labour variances, responsibility accounting and make or buy decision

I am in the process of preparing the report on the variances for December 2024. I would like you to prepare the section about the direct labour variances for both the Cutting and the Assembly Departments. Table 1 (attached) includes the variances together with some associated notes.

Please prepare content for a report to the Senior Management Team (SMT) which explains:

- What each of the variances in Table 1 mean and likely reasons for their occurrence.

(sub-task (a) = 48%)

John Kanann, Managing Director, has been discussing the future of the business with his daughter, Freya, who has suggested, given that the company is growing, managers should be made more accountable for their budgets within the business. John has asked for some information about responsibility accounting.

Please prepare a briefing paper for the SMT which explains:

- How a responsibility accounting system could be implemented in the Production Facility. Please illustrate your explanation with reference to the variances shown in Table 1.

(sub-task (b) = 24%)

John, influenced by Freya, has decided that Kanann will start to sell a range of bridles and reins. Jack Newman, Production Manager, believes that cutting machine hours would potentially be limited if the items were made in-house and, in the longer term, additional equipment would be required. Therefore, in the short term, we need to decide whether to buy-in the items or make them ourselves. To assist with this decision, I have prepared an analysis of what it will cost to buy-in the bridles and reins and to make them in-house, based on current production capacity (Table 2 attached).

Please include in your briefing paper to the SMT an explanation of:

- How the information shown in Table 2 would be used to decide which of the bridle and rein models we should buy in and which we should make in-house, assuming that we want to utilise all of the available cutting machine hours.

(sub-task (c) = 28%)

Lois Gammell
Finance & HR Manager
Kanann

The attachments to the email can be found by clicking on the Reference Material button above.

Table 1: Direct labour variances for December 2024

Direct labour variance	Cutting Department K\$	Assembly Department K\$
Rate	3,015 A	8,272 F
Idle time	2,550 A	8,400 A
Efficiency	1,275 F	7,500 A

Notes:

- In November, John Kanann, Managing Director, took the decision to invest in a new edging machine to be used to edge leather pieces in the Cutting Department. The new machine works at a faster rate than the old machine. All employees in the department had to be trained how to use the machine.
- Also in November, Jack Newman, Production Manager, recruited a number of new direct employees for both departments. For the Cutting Department, he was able to recruit experienced leather cutters who had previously worked at a nearby leather handbag factory. For the Assembly Department, Jack ended up recruiting trainees, that were then trained on the job by some of the other direct workers. All of the new employees started work for Kanann at the start of December and the trainees earn less per hour than experienced employees.
- At the start of November, John Kanann decided that all routine servicing of equipment would be suspended for 3 months. One of the sewing machines used in the Assembly Department broke down during December and was out of action for 3 days until it could be repaired.
- The direct employees in both departments worked more overtime than budgeted in the month. Overtime premium is included as part of direct labour cost.

Table 1 Table 2


Table 2: Information for make or buy decision for bridles and reins


Per unit	Bridle: Deluxe K\$	Bridle: Regular K\$	Reins: Deluxe K\$	Reins: Regular K\$
Buy-in purchase price	70.00	55.00	50.00	38.00
	K\$	K\$	K\$	K\$
Variable production cost	65.60	56.40	38.90	26.30
Fixed production cost	8.90	10.20	5.70	4.10
Total production cost	74.50	66.60	44.60	30.40
	Hours	Hours	Hours	Hours
Cutting machine hours	2.0	1.7	1.5	1.5


Reference Material


Pre-seen


Write the report section and briefing paper requested by Lois Gammell in the box below.











































Paragraph ▾




























Thank you for completing the Operational Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Operational Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.

Click **Next** to start the test.

This examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	45	1	3	(a) 44% (b) 24% (c) 32%
2	45	1	3	(a) 52% (b) 24% (c) 24%
3	45	1	4	(a) 28% (b) 24% (c) 24% (d) 24%
4	45	1	3	(a) 48% (b) 36% (c) 16%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during the examination by clicking on the Pre-seen button.

Reference Material

Pre-seen

Today is 1 June 2024. The Senior Management Team (SMT) of Kanann has decided to set up a small Sales Office and Distribution Centre in Geeland, a country in Asia. Geeland is an emerging economy where equestrian leisure pursuits have been growing in popularity over the last 10 years. Kanann saddles are currently not sold in this part of Asia.

You receive the following email:

From: Lois Gammell, Finance & HR Manager

To: Finance Officer

Subject: Time series and new customers

We have recently appointed Ben Harris as the new Sales Manager for Geeland. Ben knows a lot about the saddle market, but has until now been based in Keeland. He is currently in Geeland looking for premises and making contacts with potential customers. Eventually, we will use the Geeland Sales Office and Distribution Centre as a base for sales to other countries in this part of Asia, but initially we will just focus on the market in Geeland. We expect to start selling into Geeland from 1 October this year and need to create a sales forecast for the first quarter.

Graph 1 (attached) shows quarterly sales of general purpose saddles in Geeland. I know that Geeland has an annual Horse Show in April of each year and that there are various horse-related exhibitions and trade shows around that time of year.

Please prepare a briefing paper for the SMT which explains:

- What Graph 1 shows. Please also explain how to determine a trend line and seasonal variations based on a 4-point moving average (using all of the data in the graph) and the additive model.

(sub-task (a) = 44%)
- The difficulties of using this trend line and these seasonal variations to create a forecast of sales volumes in Geeland for the quarter October to December 2024.

(sub-task (b) = 24%)

Ben has started negotiating with two potential equestrian retailers. He has sent me some financial information (Table 1 attached) about each retailer and has asked what this might indicate about how we determine trading terms with them.

Please prepare a briefing paper for Ben Harris which explains:

- The working capital approaches adopted by each of the potential customers and how this will influence how we determine trading terms with each of them.

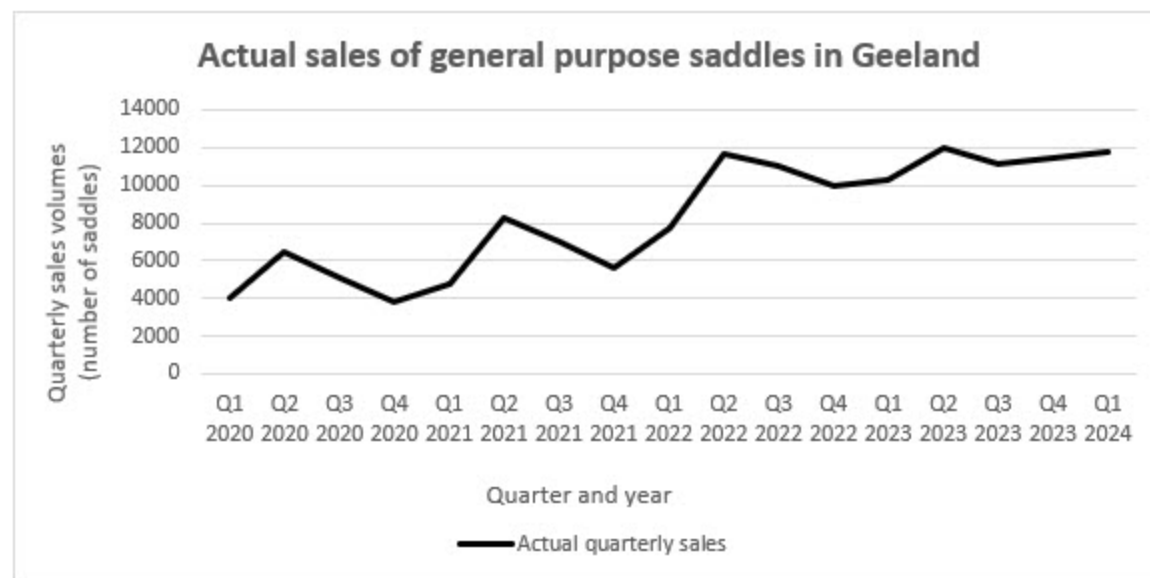
(sub-task (c) = 32%)

Lois Gammell

Finance & HR Manager

Kanann

The attachments to the email can be found by clicking on the Reference Material button above.

Graph 1: Past sales history**Note:**

- Q1 is the period January to March and so on.



Graph 1 Table 1

Table 1: Information about Hackers Hub and Geeland Horse Supplies










	Hackers Hub	Geeland Horse Supplies
Inventory days	22 days	62 days
Receivable days	15 days	41 days
Payable days	65 days	20 days
Annual revenue	G\$8 million	G\$25 million
Growth in annual revenue from 2022 to 2023	+12%	+4%
Cash balance	G\$0.05 million	G\$0.85 million










Notes:

- Standard credit terms in the equestrian products market for both receivables and payables is 30 days in Geeland.
- In Geeland, prompt payment discounts are commonly offered.

 Reference Material Pre-seen

Write the briefing papers requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph ▾  ▾        

Reference Material

Pre-seen

Two weeks later, you receive the following email:

From: Lois Gammell, Finance & HR Manager
To: Finance Officer
Subject: Geeland Pony Club videos and marketing campaign for Geeland

Ben Harris, Geeland Sales Manager, has been developing a good relationship with the Geeland Pony Club. As a result of this, we will be creating a series of videos, targeted at Pony Club members. These videos will feature Freya Kanann and Kia Patel, an international equestrian competitor from Geeland, showing various aspects of saddle and horse care. Freya will provide her services for free, but we will pay Kia a separate fee for each video that is created. We plan to have six videos in the series, with each video being a different length.

The videos will be an opportunity for us to promote our brand in Geeland. They will be available to view on Geeland's largest video hosting website, the Pony Club website and the new Geeland page of our website (which will need to be upgraded to allow videos to be hosted and streamed). We will pay a one-off fee to the video hosting website to enable us to host content and will also pay a fee per video that is viewed on that website. No fees will be payable to the Pony Club. The videos will be filmed on location in Geeland by a video production company. We plan to film the six videos at the same time, and the production company will charge us one fee for doing this. We will need to pay any location expenses separately.

Please prepare a briefing paper for the Senior Management Team (SMT) which explains:

- The direct and indirect costs associated with a specific video. Please also explain the potential problems of determining the total cost for each specific video.

(sub-task (a) = 52%)

Ben has been working with three different external marketing agencies in Geeland on a 12- month promotional campaign. As Geeland is an emerging economy, we're not sure how strong the economy will be over the next year, although Ben has estimated that there is a 40% chance it will be strong, a 40% chance it will be moderate and a 20% chance it will be weak. Table 1 (attached) includes a payoff table and statistical information about the three campaigns, based on Ben's best estimates of possible outcomes.

Please include in your briefing paper an explanation of:

- How the decision about which promotional campaign to choose would be made if the SMT was either risk seeking, risk neutral or risk averse, in each case giving the decision that would be taken.

(sub-task (b) = 24%)

- Any limitations associated with the information used to complete Table 1 and any limitations of using the three decision approaches.

(sub-task (c) = 24%)

Lois Gammell
Finance & HR Manager
Kanann










The attachment to the email can be found by clicking on the Reference Material button above.











Table 1: Payoff table of Geeland profit/(loss) for the year after promotional campaign costs and related measures

Expected state of the economy	Probability	Campaign 1 K\$000	Campaign 2 K\$000	Campaign 3 K\$000
Strong	0.4	620.0	614.0	480.0
Moderate	0.4	234.0	275.0	297.0
Weak	0.2	(218.0)	(102.0)	0.0
Expected value		298.0	335.2	310.8
Co-efficient of variation		1.04	0.79	0.57

 Reference Material Pre-seen

Write the briefing paper requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph          

Reference Material

Pre-seen

Today is 3 September 2024. Lois Gammell, Finance & HR Manager, calls you and says:

"The budget for the operations in Geeland has just been finalised for the quarter October to December 2024. There is some uncertainty about the mix of sales, the level of discount we will give and final sales volumes. I have drawn up a multi-product break-even chart (Chart 1), which I will send you shortly.

Please prepare a report for the Senior Management Team (SMT) which explains:

- Chart 1 and the information that it gives us.

(sub-task (a) = 28%)

- The benefits and limitations of this break-even analysis, with reference to the uncertainty surrounding the mix of sales and level of discount.

(sub-task (b) = 24%)

We have just leased a fork-lift truck for the new Geeland Distribution Centre. Details of the lease are included in Table 1, which I will send you shortly.

Please include in your report to the SMT an explanation of:

- How the right-of-use asset associated with the leased fork-lift truck detailed in Table 1 will be initially recorded and subsequently measured in our financial statements for the year ending 31 December 2024.

(sub-task (c) = 24%)

Ben Harris, Geeland Sales Manager, has suggested that we offer horse accessories (such as reins, bridles, rugs and so on) in Geeland because a lot of the retailers he has made contact with have requested such items. We will therefore hold an inventory of these items in the new Geeland Distribution Centre. Many of these accessories will be imported into Geeland. Rina Gomez, Deputy Managing Director, has asked how these accessory items will be valued for financial statement purposes. I have included some information about one of the accessories in Table 2, which I will give you shortly.

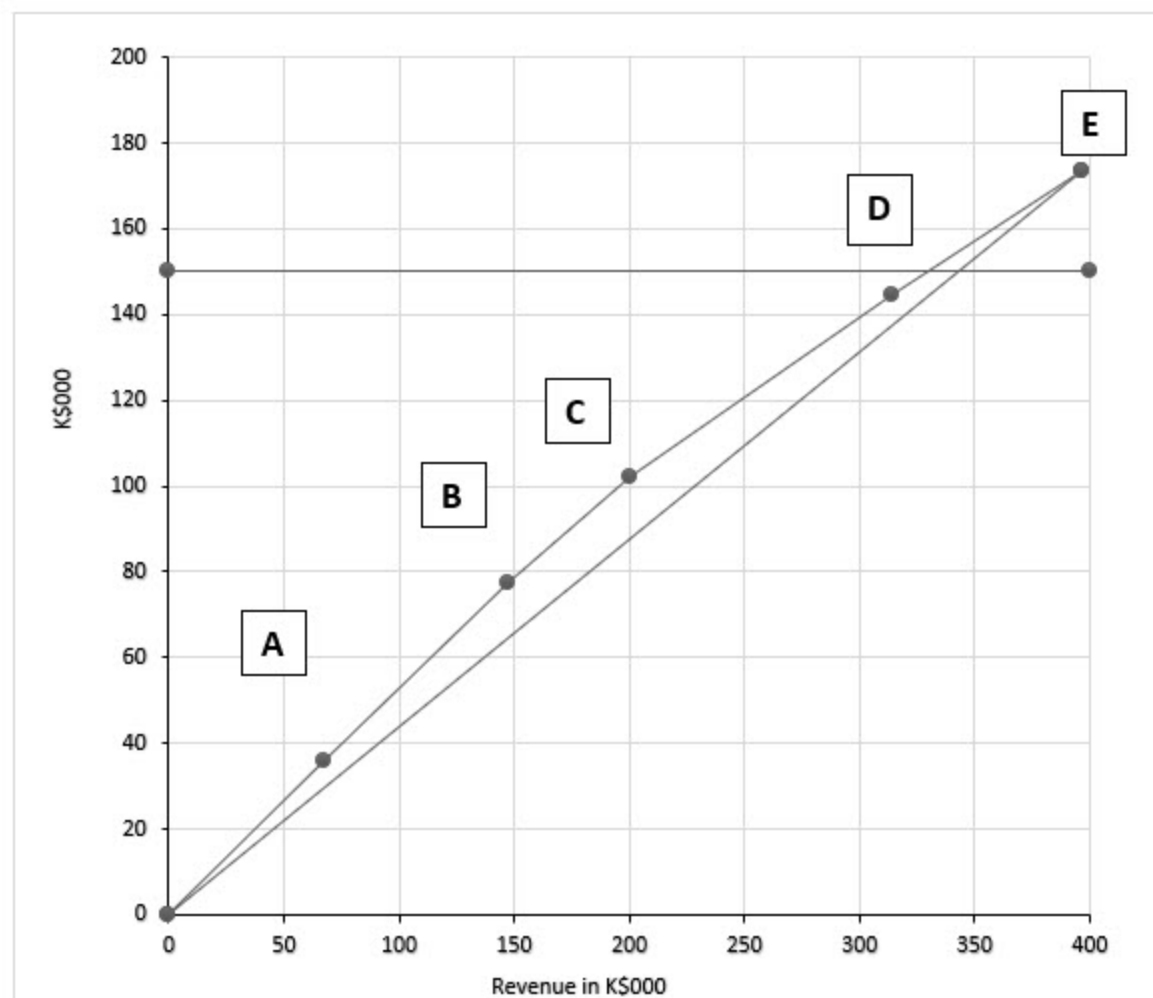
Please prepare a briefing paper for Rina which explains:

- How the accessories inventory will be measured in our financial statements, with reference to all of the information in Table 2 and to the measurement rule in the relevant financial reporting standard."

(sub-task (d) = 24%)

Lois Gammell sends you Chart 1, Table 1 and Table 2, which can be found by clicking on the Reference Material button above.

Chart 1: Multi-product break-even chart for Geeland for the period October to December 2024



Notes:

- Fixed costs include a share of production overheads plus selling, distribution, marketing and administration costs specific to Geeland.
- Budgeted total revenue is K\$380,000.
- The budgeted contribution to sales (c/s) ratios are:

	c/s ratio
Astral: Type 1	0.38
Astral: Type 2	0.41
Meteor: Type 2	0.48
Meteor: Type 3	0.51
Comet: Type 3	0.53
Weighted average	0.46

Table 1: Lease of fork-lift truck

Lease commencement date	1 September 2024
First lease payment due	31 August 2025
Annual lease payments	K\$10,000
Number of annual lease payments	5
Lease arrangement fee	K\$2,000
Interest rate implicit in the lease	10%
Useful life of the fork-lift truck	10 years

Note:










At the end of the lease term, we have the option to purchase the fork-lift truck for K\$20,000. At this stage, we expect to take this option.










Table 2: Information about horse rugs

	Per horse rug K\$
Full purchase price from supplier	20.00
Import duty	0.40
Delivery cost to Geeland	1.10
Insurance cost	0.30
Selling price to the customer	40.00
Delivery to the customer	0.80

 Reference Material Pre-seen

Write the report and briefing paper requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph ▾  ▾        

Reference Material

Pre-seen

It is now the end of January 2025. Lois Gammell, Finance & HR Director, calls you and says:

"The Senior Management Team (SMT) is meeting to review sales performance in Geeland for the first quarter, October to December 2024. I have calculated the sales variances, which are included in Table 1, and I will send this to you shortly.

Please prepare a briefing paper for the SMT which explains:

- What the sales variances in Table 1 mean and possible reasons why they have arisen.

(sub-task (a) = 48%)

I had a conversation yesterday with John Kanann, Managing Director, about how we monitor performance across the business. As a result, he would like to start using key performance indicators (KPIs) and has asked for suggestions of KPIs that could be used to monitor the performance of Ben Harris, Geeland Sales Manager. Ben is responsible for all aspects of Geeland sales, including signing up new retailers, generating sales from those retailers and retaining the retailers. He earns a bonus each time he signs a new retailer and for each saddle sold.

Please include in your briefing paper suggestions of:

- Three KPIs that could be used to monitor the performance of Ben Harris, Geeland Sales Manager. Please include an explanation of how each KPI would be measured and why it would be appropriate.

(sub-task (b) = 36%)

I have just started work on the financial statements for the year ended 31 December 2024. On 28 January, we were notified that a former employee is taking us to court for unfair dismissal. The employee was dismissed on 2 January this year. Our lawyers believe that there is a good chance that the former employee will be successful, which will result in us paying damages of around K\$10,000.

Please include in your briefing paper an explanation of:

- Whether or not the event on 28 January will affect the financial statements for the year ended 31 December 2024 and how the financial statements will be affected."

(sub-task (c) = 16%)


Lois Gammell later sends you Table 1, which can be found by clicking on the Reference Material button above.

Table 1: Sales variances for saddle sales in Geeland for October to December 2024










Variance	Astral: Type 1 K\$	Astral: Type 2 K\$	Meteor: Type 2 K\$	Meteor: Type 3 K\$	Total K\$
Sales price	5,700 A	3,900 A	Nil	1,200 F	8,400 A
Sales volume	3,752 F	2,924 F	3,159 A	6,160 F	9,677 F
Sales mix profit	1,613 A	72 F	943 A	948 F	1,536 A
Sales quantity profit					11,213 F










Notes:

- The sales mix and quantity profit variances are calculated using the weighted average method. The standard weighted average profit per saddle is K\$863. The individual profits per saddle are:
 - Astral: Type 1 = K\$469
 - Astral: Type 2 = K\$731
 - Meteor: Type 2 = K\$1,053
 - Meteor: Type 3 = K\$1,540
- Note that it was decided just prior to launch not to sell the Comet: Type 3 in Geeland. As a result, these sales were removed from the Geeland budget.
- Budgeted selling prices are net of expected discounts to retailers. Ben Harris, Geeland Sales Manager, has the authority to negotiate discount arrangements with retailers.
- During October and November, we funded an unplanned one-off promotional discount of 10% to retailers on Astral saddles which were sold onto Geeland Pony Club members.
- In December, Ben Harris secured a significant order of Meteor: Type 3 saddles from a new retailer.

 Reference Material Pre-seen

Write the briefing paper requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph ▾  ▾        



Thank you for completing the Operational Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Operational Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.

Click **Next** to start the test.

This examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	45	1	2	(a) 48% (b) 52%
2	45	1	3	(a) 44% (b) 20% (c) 36%
3	45	1	4	(a) 32% (b) 32% (c) 12% (d) 24%
4	45	1	3	(a) 40% (b) 24% (c) 36%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during the examination by clicking on the Pre-seen button.

Reference Material

Pre-seen

Today is 1 June 2024. Freya Kanann is currently working in the business shadowing her father, John Kanann, Managing Director.

Lois Gammell, Finance & HR Manager, telephones you and says:

"I have just had a meeting with John and Freya Kanann where we started to talk about some of Freya's ideas for improving the business and driving future growth. As part of this, Freya believes that there is scope to improve the cost-competitiveness of the company. Having learnt about the CGMA cost transformation model at university, she believes that the following elements of the model could be applied within Kanann:

- Managing the risk inherent in driving cost-competitiveness.
- Understanding cost drivers and cost accounting systems and processes.
- Incorporating sustainability to optimise profits.

Please prepare a briefing paper for John Kanann which explains:

- The three areas of the CGMA cost transformation model mentioned above and how these apply and could be applied to our business.

(sub-task (a) = 48%)

At the meeting, we talked about the level of inventory currently on hand in the Production Facility, which is the highest it has been for some time. Freya has suggested that we take a more aggressive approach to managing inventory levels and consider using Just-in-Time purchasing. John has asked for more information about the current level of inventory and Freya's suggestions. I have just calculated inventory days at the end of December 2023 and the end of May 2024. These are included in Table 1, together with some notes, which I will send you shortly.

Please include in your briefing paper an explanation of:

- The benefits and drawbacks of taking a more aggressive approach to the management of our inventory levels. Please also explain whether adopting Just-In-Time purchasing would be a suitable way for us to achieve this."

(sub-task (b) = 52%)


Lois Gammell sends you Table 1, which can be found by clicking on the Reference Material button above.

Table 1: Kanann's inventory days










	31 May 2024 Days	31 December 2023 Days
Raw materials	41	39
Work-in-progress	10	5
Finished goods	20	12
Total inventory days	71	56









Notes:

- At the production site, there are separate warehouse buildings for raw materials and finished goods inventory.
- Bulk purchase discounts are available and claimed on some raw material purchases.
- Many suppliers are located within 20 kilometres of the Production Facility, although leather suppliers are located in a different country.

 Reference Material Pre-seen

Write the briefing paper requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph        

Reference Material

Pre-seen

It is now 30 November 2024. As part of driving the business forward, a major overhaul of the production site is underway. This includes a complete re-organisation of production operations.

You receive the following email:

From: Lois Gammell, Finance & HR Manager
To: Finance Officer
Subject: Treatment of assets, disposal of warehouse and activity-based budgeting

The overhaul of the production site is progressing smoothly so far. We have replaced one of our older industrial sewing machines with a new machine. We stopped using the old machine on 1 October 2024 when the machine's carrying amount was K\$8,400. The machine was reconditioned at the end of October, at a cost of K\$2,500, and this is expected to enhance the operating speed of the machine and to extend its useful life by 2 years. There is a meeting of the Senior Management Team (SMT) tomorrow, 1 December, to discuss whether this machine will be sold or whether it will be kept as a spare, just in case another machine breaks down. There is a good second-hand market for this type of machine now that we have had the machine reconditioned, and we expect that we could sell it relatively easily at the start of 2025, if it is advertised for sale in December.

Please prepare a briefing paper for the SMT which explains, with appropriate justification:

- How this industrial sewing machine will be reflected in our financial statements for the year ending 31 December 2024, assuming the SMT decides to sell the asset at the meeting on 1 December.

(sub-task (a) = 44%)

As part of the re-organisation of our production site, we sold a small warehouse building on the edge of the site on 1 November 2024 for K\$100,000, incurring selling costs of K\$5,000. The warehouse was originally purchased for K\$25,000 15 years ago and we spent K\$15,000 extending it 5 years ago. Its carrying amount at the date of sale was K\$22,000. Indexation allowances are available on the disposal of building assets and the capital tax rate is 20%.

Please include in your briefing paper an explanation of:

- How the disposal of the warehouse building will affect the amount of capital tax payable by the company for the year ending 31 December 2024.

(sub-task (b) = 20%)

Also, as part of the re-organisation, we have invested in new machinery throughout the Production Facility. Up until now, any repairs and maintenance required for our machinery has been outsourced. This is about to change as we set up an internal machinery maintenance team. The activities of the team are described in Table 1 (attached). It has been suggested that we use an activity-based budgeting (ABB) approach to create a budget for the employee costs of this new team.

Please include in your briefing paper an explanation of:

- How an ABB approach could be applied in determining a budget for maintenance team employee costs.

(sub-task (c) = 36%)

Lois Gammell
Finance & HR Manager
Kanann










The attachment to the email can be found by clicking on the Reference Material button above.









**Table 1: Activities of the maintenance team**

Activity	Detail
Routine maintenance check	Each item of machinery or equipment will have at least one routine maintenance check each year. Key pieces of equipment, such as the cutting tools used to cut leather, will have a routine check each month. Routine maintenance involves cleaning the machine / piece of equipment, sharpening, adding oil if required and changing small parts that need to be changed, with the aim to keep all items working optimally.
Repairs	The team will be responsible for completing repairs to machines and equipment as they arise.

 Reference Material Pre-seen

Write the briefing paper requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph        

Reference Material

Pre-seen

A week later, Lois Gammell calls you and says:

"John Kanann, Managing Director, has been looking at the draft budget for the first quarter of 2025. Because of the recent changes in the production processes and some uncertainty about leather prices next year, there is a possibility that our variable costs per unit will be higher than our draft budget. There is also uncertainty over how many saddles we will sell. In addition, there has been discussion between John and Ella Beard, Sales Manager, about pricing policy. Ella believes that reducing prices for the quarter will increase our chances of higher sales volumes, although John believes that a higher selling price will generate more profit. John has asked for an analysis of how changing selling price and the uncertainty over variable costs and sales volumes will impact the budget. As a result, I have drawn up a what-if analysis (Table 1), which I will send you shortly.

Please prepare a briefing paper for John Kanann which explains:

- The figures in the what-if analysis in Table 1 and what they indicate about the impact on budgeted profit of changes in sales volumes, average variable cost per unit and average selling prices.

(sub-task (a) = 32%)

Whilst I was preparing the what-if analysis, Ella sent me her assessment of the probabilities associated with achieving the three different sales volumes at different average selling prices. I have used these, together with my own assessment about the probabilities associated with the three possible average variable cost per unit figures used in the what-if analysis, to calculate expected values and coefficients of variation for each average selling price. The probability information is included in Table 2 and the other statistical information in Table 3, both of which I will send you shortly.

Please include in your briefing paper an explanation of:

- How the expected values in Table 3 have been calculated and what the three measures in the table mean.

(sub-task (b) = 32%)

- How the attitude to risk of the decision maker will impact which average selling price would be chosen.

(sub-task (c) = 12%)

- Any limitations of the what-if information included in Table 1 and any drawbacks of using expected value to make this decision."

(sub-task (d) = 24%)

Lois Gammell sends you Tables 1, 2 and 3, which can be found by clicking on the Reference Material button above.

Table 1: What-if analysis on the budget for the period January to March 2025

Average selling price	Average variable cost (VC) per unit	Profit at different sales volumes		
		425	450	475
K\$	K\$	K\$	K\$	K\$
3,675	1,350	138,125	196,250	254,375
	1,450	95,625	151,250	206,875
	1,550	53,125	106,250	159,375
3,500	1,350	63,750	117,500	171,250
	1,450	21,250	72,500	123,750
	1,550	(21,250)	27,500	76,250
3,325	1,350	(10,625)	38,750	88,125
	1,450	(53,125)	(6,250)	40,625
	1,550	(95,625)	(51,250)	(6,875)

Notes:

- The current draft budgeted profit for the quarter is K\$117,500.
- Profit is after budgeted fixed production and non-production overheads of K\$850,000.
- Average selling price and average variable cost per unit are based on draft budgeted mix.



Table 2: Probability estimates

Average VC per unit	Probability
1,350	0.50
1,450	0.30
1,550	0.20










Selling price	Sales volume	Probability
3,675	425	0.80
	450	0.10
	475	0.10
3,500	425	0.20
	450	0.60
	475	0.20
3,325	425	0.10
	450	0.10
	475	0.80











Table 3: Statistical measures based on joint probabilities and Table 1 outcomes

	Selling price		
	K\$3,675	K\$3,500	K\$3,325
Expected value (K\$)	125,288	86,000	40,588
Standard deviation	107,470	80,669	41,619
Coefficient of variation	0.86	0.94	1.03

 Reference Material Pre-seen

Write the briefing paper requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph          

Reference Material

Pre-seen

It is now April 2025 and you receive the following email:

From: Lois Gammell, Finance & HR Manager
To: Finance Officer
Subject: Variances and key performance indicators

The Senior Management Team (SMT) has asked for a review of the performance of the Production Facility for the first quarter of 2025, given all of the changes that occurred last year, and so I am compiling a report. I would like you to provide commentary for the section on fixed production overhead variances. I have already calculated the variances, which are in Table 1 (attached).

Please prepare content for a report to the SMT which explains:

- What each of the variances in Table 1 means and possible reasons for their occurrence.

(sub-task (a) = 40%)

Freya Kanann has been part of the SMT for a few months and she has suggested to her father, John Kanann, Managing Director, that individual managers should be given more freedom to make decisions about their departments. As a result, all managers, including Jack Newman, Production Manager, have been given more authority to make decisions. Freya has also now suggested that these managers be held accountable for those decisions through variance analysis and key performance indicators (KPIs).

Please include content for the report to the SMT which:

- Explains the benefits of splitting variances into planning and operational variances, with reference to the fixed production overhead variances.

(sub-task (b) = 24%)

- Suggests three KPIs that are appropriate to monitor the performance of Jack Newman, Production Manager, with respect to his management of employees. Please explain how each KPI would be measured and why it would be appropriate.

(sub-task (c) = 36%)

Lois Gammell
Finance & HR Manager
Kanann

The attachment to the email can be found by clicking on the Reference Material button above.

Table 1: Fixed production overhead variances for January to March 2025










Variance	K\$	
Expenditure	16,750	Adverse
Efficiency	14,700	Favourable
Capacity	30,250	Favourable
Total	28,200	Favourable











Notes:

- The budget for 2025 is based on the operations in the re-organised Production Facility.
- Fixed production overhead is absorbed on the basis of direct labour hours. The standard absorption rate for 2025 is K\$24.50 per direct labour hour.
- During the period January to March 2025, the following occurred:
 - We made more saddles than anticipated because of higher-than-budgeted demand and therefore significant overtime was worked.
 - To enable us to manufacture more saddles, in February, Jack Newman, Production Manager, recruited new direct employees. He made the decision to recruit experienced employees, rather than take on new trainees. He also employed an additional supervisor and arranged for additional production equipment to be rented.
 - Also in February, John Kanann, Managing Director, decided to give every member of the production team (direct and indirect) a bonus, which is payable in every month where production is higher than the budgeted amount. This bonus was paid in both February and March.
 - It was discovered that some of the new manual processes introduced as part of the re-organisation took longer than anticipated, although some of the machinery was able to operate at a quicker speed than originally expected based on the standard.

 Reference Material Pre-seen

Write the report contents requested by Lois Gammell in the box below.

       **B** *I* U  x_2 x^2 

Paragraph          



Thank you for completing the Operational Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.

OPERATIONAL CASE STUDY

MAY & AUGUST 2024

EXAM ANSWERS

Variant 1

These answers have been provided by CIMA® for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1

Using the decision tree

The decision tree is a diagrammatic representation of the situation we face when trying to decide how to carry out the suitability testing of vegan leather. Working from left to right through the tree, we can see the points at which we have to make decisions (D1 and D2) and probability points (EV1 and EV2). At probability points, we calculate an expected value based on the estimated costs and their probabilities at that point. We have the choice of carrying out the testing in-house or letting the University do it. If we choose in-house, we then must decide if we train our staff or recruit an external team.

To financially evaluate the tree, we must work from right to left and roll back the outcomes from each branch of the tree. At D2, we can choose how the in-house testing would be done. It would cost K\$15,000 to train our own staff and the expected value of the operational cost of them performing the testing has been calculated to be K\$82,000. This would give a cost going forward on that route from D2 of K\$97,000. If we recruited a team through the agency, the total expected value of cost would be $K\$20,000 + K\$94,500 = K\$114,500$. Therefore, at D2, we would choose the lower cost of K\$97,000 and train our own staff.

At D1, we can choose to set up an in-house testing facility or to let the University do the work. It would cost K\$20,000 to set up the facility and therefore the total cost of in-house testing is estimated to be K\$117,000. If the University does the work, the cost will be K\$124,500. There is only one figure given here so it is assumed that they have quoted a fixed price for the job.

The choices at D1 are K\$117,000 and K\$124,500 and therefore we would choose to set up an in-house facility and train our own staff as this is the lowest cost option. This recommendation is based purely on a financial interpretation of the tree using expected values.

The limitations of using the decision tree

The decision tree gives a clear picture of the interconnectedness of decisions, events and risk. This is beneficial to highlight, for instance, where there is an increased probability of high costs being incurred; for example, comparing the external team operating at Kanann's premises compared to the internal team. However, there are limitations to this type of analysis.

To enable decisions to be reflected in a diagram, they must be simplified, and this can make the decisions appear more discrete than they really are. For example, the only cost included on the tree for recruiting the external team to work at our premises is the cost of the recruitment consultant; however, there will also be other financial costs incurred, such as colleague time taken to interview potential candidates and completing induction of new staff. Costs may also be different from the forecast figures; for example, costs for the existing staff option may be anywhere between K\$60,000 and K\$100,000, not just those two figures.

The expected values used to make the decisions depend on the probability values. These values will be subjective and, whilst experienced staff have produced the information, this is the first project of its kind we have completed, and this may mean the values used will be open to question. Any errors in the cost or the probability may have a negative effect on the project.

The decision tree only covers financial factors; however, non-financial factors can also be important in deciding. For example, the scientists recruited by the external agency may not have saddle industry knowledge to give context to their testing before their arrival. Therefore, to be effective, they will have to assimilate a lot of industry knowledge in a short time which existing staff will already have.

The assumption when using a decision tree is that the decision maker will choose the lowest cost and is risk neutral. However, this is the first time we have ventured into a new market and, rather than with larger companies which have a board deciding, our ultimate decision maker is John Kanann. The final decision will depend on his personal view of risk, and he may not be risk neutral but may be risk averse. One-off decisions such as this should not use expected values.

It may also be that the additional cost of using the university facilities may be felt worthwhile as it avoids the need to be involved in all aspects of project managing the set-up of the in-house facilities and staff training. Added to which this cost is known, and that certainty can aid budgeting and planning. This choice may also be seen as prudent as there is 55% of high costs being incurred if the in-house facilities are undertaken.

Appropriateness of funding methods

Time period

The project is expected to take approximately 12 months to complete. However, there is no detail of any buffer period being built into this time frame to account for delays or any details of when the project will generate positive income. The overdraft is for a 1-year period, which may be too short if there are delays. Although it may be possible for an additional overdraft period to be negotiated, this is not certain. However, the loan period is for 1.5 years, which means finance will be available for the whole of the project period. Although, this does highlight the additional costs which could be incurred as the loan is for a period which may be longer than required to finance the project, dependent on any delays incurred.

Finance requirement

The cashflow shows that the maximum requirement in any one month during the project is K\$110,000, although, across the year, the full K\$300,000 will potentially need to be financed. The loan of K\$300,000 would cover the estimated costs in full and would be available as costs were incurred throughout the project period, although we would need to plan for the repayment of capital. The overdraft would not cover the full requirement, although, whether a facility of K\$90,000 would be sufficient will depend on other cash resources available within the business to support the monthly cash flows for the project.

Interest rate and cost

Whilst the total interest rate for the loan is 8% and the interest rate for the overdraft is 9%, we would only pay interest on the finance used in respect of the overdraft, rather than the whole balance. If we take out the loan, we would be paying the interest from day 1 for the full 1.5 years on the capital balance outstanding. For the overdraft, we would only pay interest on the overdraft balance amount.

Repayable on demand

It should also be noted that an overdraft is repayable on demand, which leads to a level of uncertainty in funding, which is not the case with the loan. With the loan, if the repayments of capital and interest are repaid monthly in line with the terms of the agreement, then the funding would be available for the period.

Financial and non-financial factors before delaying payments to suppliers

Improvement in cashflow

Delaying payments to suppliers outside of the agreed credit terms of 30 to 75 days should shorten the cashflow operating cycle. This is because the extended period of credit will offset delays in receipts. There is no mention of other areas of the operating cycle changing, for example, receivable or inventory days. This is important as the cashflow benefit of delaying supplier payments will only be successful if the timing of

all other areas within the operating cycle stays the same. Delaying payments to suppliers will reduce cash used, but only if receivables continue to pay on agreed terms and work in progress and finished goods days are also static.

Delaying payments to suppliers will influence their business, as we will effectively be delaying cash being received by the supplier which will potentially increase their costs through using more working capital. This can have several effects which may include:

- Increasing costs for a business, especially when historically we have always paid on time, may lead to a loss of goodwill which may affect orders with a short-lead time for instance.
- As payments are delayed, we may lose prompt payment discounts on items such as consumables, as we are likely to fall outside the agreed payment period to receive the discount. The cost impact of this would have to be investigated as it would depend on the value of such items as to whether this would have a material impact on the business. This should be measured by comparing the value of the discount lost to the cost of financing the higher supplier payment, for instance, through an increased overdraft.
- The above may all lead to suppliers increasing prices to compensate for the later payments, which would then increase costs to the business overall.

Such effects should be investigated as not all risks will affect all suppliers to the same extent and some suppliers will be more important to us than others.

SECTION 2

Sale and purchase of non-current assets

IXO G1

The IXO G1 should be derecognised in the statement of financial position on 28 December when it is removed from site. This is because on that date IXO Engineers will have control over the machine and therefore we no longer have an asset.

On 30 November, we have a firm agreement for the sale of the asset at a reasonable price and management are committed to the sale. The machine will be disassembled on 15 December 2024 and, on the assumption that we continue to use the machine until that point, it's likely that this is the date that the asset will become an asset held for sale.

Assuming that the machine is an asset held for sale on 15 December, we need to calculate the carrying amount on that date which will be K\$25,000 less half a month's depreciation of K\$250. This carrying amount is then compared to the asset's fair value less cost to sell of K\$19,000, and, because the latter is lower, the asset will be written down to this amount. Therefore, there will be a loss charged to the statement of profit or loss at this point. The asset will also be reclassified as a current asset.

On 28 December, the asset is actually sold and the asset held for sale will be derecognised. The sale proceeds of K\$19,000 will exactly match the amount derecognised and therefore there will be no further adjustment to profit in respect of this asset.

IXO G3

We should recognise the new cutting machine in the financial statements as an item of property, plant, and equipment when we can measure its cost reliably, and we know that the economic benefits of the machine will come to us. In this case, this cannot be done before the machine arrives on 27 December.

The machine should be initially recorded at its cost, which includes purchase cost net of discounts and any costs directly attributable to getting the asset ready for its intended use. Therefore, the purchase price net of trade discount of K\$104,000 will be capitalised. The installation, delivery and testing costs will also be added to the purchase cost because these costs are directly attributable to getting the machine ready for use.

Depreciation of the machine will commence from the date that it is capable of being used for the purposes intended by management. Based on the invoice, this will be on 28 December 2024, as this is the date when installation and testing will be complete. The depreciation charge for the year ending 31 December 2024 will be calculated as K\$108,000 less any residual value divided by the useful life of the machine multiplied by 3/365.

Management accountant information

The decision to undertake this project is a major one for Kanann. A key role of a management accountant is to provide information for decision making. Therefore, it could be argued that appointing a management accountant would be of benefit; however, further benefits can also be expected. These would come from an expanded view of the role of the management accountant which includes providing information for planning, control and decision making. Fundamentally, this includes understanding costs, cost behaviours and costing systems.

Planning

Using budgets, they will be able to build up financial representations of the different options available to achieve the long-term goals of increasing sales and diversifying the product range with the vegan leather saddle. They will also be able to sensitize these plans to model different scenarios we may find ourselves in when producing and selling the new saddles. They will build up representations of the planning aspect. This will entail building up standard costings for new products which can be used to produce budgets. In turn, the budgets will explain the financial impacts of different courses of action based on different assumptions.

Control

When production takes place, the budgets and standards can be used to calculate variances. The variances will compare the standard costs and budgeted volumes with the actual costs and production/sales volumes. This analysis will be summarised and interpreted in reports to management. Reconciliations and explanations of differences between budgeted and actual performance could also provide further insights.

Decision making

Costing is at the heart of the production of information to ensure managers have the information available to make informed choices about the next course of action for the new saddle project. This can include operational, tactical and strategic decisions. At an operational level, this may include issues about whether a new saddler should be hired to produce the new vegan saddles. Whilst, at a tactical level, such decisions may include the price to charge for the new saddle. Finally, at a strategic level, there will be decisions about whether to extend the vegan leather range in Keeland or indeed to aim to grow export sales. In all cases, the fundamental information required to make the decision will relate to the costs of the product.

Marginal costing and short-term decision making

The difference between marginal and absorption costing relates to fixed production overhead. Marginal costing does not absorb fixed production overheads such as the salaries of production supervisors or insurance in the unit cost of saddles. Whereas if we use absorption costing to make decision, it does include fixed overheads. Such fixed overheads are allocated using a fixed overhead absorption rate based on factory-

wide labour hours. Such an absorption rate is based on estimates and does not relate to cashflow, therefore for decision making it is not relevant. In addition, our absorption rate base implies that all our fixed absorption overhead costs are related to labour hours, which is very unlikely.

The only difference between marginal and absorption costing is in relation to the fixed production overheads. If we ignore them, we will use the same figures as marginal costing. When analysing break-even, we calculate contribution by deducting variable costs (including variable production overheads) from the selling price. This calculates the contribution per unit and the total fixed costs are viewed as a period cost. This shows that the information from an absorption costing system can be manipulated to suit the requirement for marginal costing information. This can then be extrapolated further to obtain relevant costs. However, the use of unit cost based on either marginal or absorption rates can generate difficulties in short-term decision making and is often only used as a quick approximation.

Instead, decisions within the development of the new saddle project should be made using relevant costs, and all costs related to the decision should be appraised for relevance using the three criteria of cash, future and caused by the decision. For a cost to be relevant, it must be a cashflow in the future and be incurred because of the decision. Given that every decision in the project could be unique, it follows that for each decision all the costs involved should be looked at in terms of their relevance as determined by the three criteria.

Based on the above, I would not recommend changing our costing system as this will not help, rather we should use relevant costs to make decisions.

SECTION 3

Beyond-budgeting

Whilst we can base the budgets for the new vegan leather saddle on existing saddles budgets, as they share a lot of similarities, we won't be able to completely use an incremental budgeting technique. This is because incremental budgeting relies on using a previous year's budget as a base for the new year. This base year is then changed for increased costs through inflation and changes in resources such as staff for instance. As this will be our first year of production for vegan leather saddles, we don't have a previous year's production from which to extrapolate. However, practically, our existing saddles may be used to provide the base information.

One of the main criticisms of incremental budgets is that they focus on the past by using previous years' information as their base and focusing on information gathered from sources within the organisation. As vegan leather saddles are a departure from our existing product, then it would be helpful to be more adaptive to changes in circumstances and to be more outward looking to compare ourselves to competitors.

Beyond budgeting uses several techniques to improve flexibility, innovation and responsiveness to outside stimuli. This is backed up using rolling budgets, which are updated on a monthly or quarterly basis, rather than annually. This increased frequency of producing budgets allows us to be more flexible and use up-to-date figures to allocate resources such as staff to adjust to new circumstances. However, this does increase the time and cost of planning. It can also make co-ordination of plans more complex as budgets will change regularly, and where reward targets are tied to budgets, this will extend to this as well and can make co-ordination more complex.

Targets will be based on external factors; for example, looking at competitor sales for a similar project rather than increasing previous year's sales. Whilst we don't have previous years information about the new vegan leather saddle, we would have to set targets based on our perception of potential sales in the market. However, in future years, this focus on sales may drive staff to find innovative ways of completing tasks, for instance, by ensuring our delivery times are at least as good as our competitors' delivery times. However, we will need to be careful and ensure that we are comparing ourselves with similar companies. A much larger company than ourselves may have access to resources we do not which influence their target levels. By setting targets which are unattainable, this may lead to staff becoming demoralised and lead to reducing performance rather than enhancing performance.

This focus on the wider external environment and the future should also drive continuous improvement and innovation, not only in future designs but in the production process, enabling us to design to reduce the amount of vegan leather and other material used and increase levels of recycling for instance. However, it is important to have good communication throughout the business as the changing nature of the information can mean goals are less clear within the organisation.

Impacts of imposing a budget on team managers

Changes in processes and working conditions from developing new products, as we are experiencing with the introduction of vegan saddles, can result in increased levels of uncertainty. These levels of uncertainty can lead to less accurate budgeting as the processes and markets are new to many of Kanann's operational managers. Participative budgeting, which we have used previously, compounds the inexperience of managers acting in isolation and could result in the loss of control and the focus on key objectives.

Imposing budgets on managers, as we want to do this year, should align their operational activities with the aims of Kanann. However, the imposition of budgets on the managers could have impacts that need to be considered.

In a participative budgeting system, managers may be induced by lack of communication or short-term targets and reward systems to do things which are not in the best interests of the Kanann. These may include introducing budgetary slack or bias in figures submitted to senior managers. A lack of communication could mean that managers are unsure of what can, or needs to be, produced and sold to ensure that Kanann's overall aims and targets are met.

The alignment of budgets may be improved by senior management setting the budget, as this can ensure that a strategic view of resources is undertaken to create a budget which uses scarce resources, which could include labour for instance, to the best effect. It may also be that, as senior management are aware of the strategic plans of the organisation, for instance, in relation to new products such as the vegan saddle, they can prepare a budget which is more in line with those strategic plans.

Managers are also more likely to accept and take ownership of the plans contained in a budget if they have participated in setting them. When considering budget setting amid the current unease being felt by staff, a greater level of acceptance may mean budgets are adhered to. Also, consultation with the managers about issues arising in their specific departments could lead to increased accuracy, and therefore, control in certain areas. For example, the Production Manager will have an insight into the actual operating capacity of the new machinery linked to operatives who are new to using the machinery. That said managers may build in budgetary slack as a response to their uncertainty with new products to ensure they meet their targets and "look good" imposing a budget avoids this problem. It would also ensure that all budgets were aligned with the company's strategic goals rather than, potentially, having budgets, where one budget disadvantages another budget holder.

A balance needs to be struck between imposition and participation. The lack of involvement in the budgeting process may mean that the morale of the managers suffers and this could impact on their performance. Kanann is a small company, and it is known that the senior management team are active in all areas of the business and know operations; they are not remote from operational issues. As such, their views, and consequently the budgets they impose on operational managers, could be respected and may bring a fresh perspective to the process, especially if the active

relationship with operational managers is exploited by consulting with those managers when the budgets are prepared.

Key performance indicators for vegan saddle quality

Complaints per period

Here, the number of complaints (which relate to product quality) is calculated as a percentage of sales made in the period. Whilst this would only tell us about historic performance, it would allow us to track the quality of products sold and potentially, if adequate tracking information is available, trace the items back to individual employees, thereby allowing us to identify any training required.

Cost of poor quality per period

This is a summary of the costs for internal and external failures. Internal failures represent scrap, reworking and reinspection, whilst external failures include product liability and brand reputation. The target (represented in K\$) should be to reduce the total cost of failures to zero. This can be expressed as a cost per month or graphically as an accumulating plot of quality cost over time which would show a flattening cost curve as quality costs are reducing. Categorisation of individual failures would then allow remediation measures to be aimed at specific areas.

Customer reviews

Retailers could ask customers to rate the saddles, for instance, using a 5-star system, with 1 star being an indicator of poor quality and 5 stars an indicator of excellent quality. The actual results could then be compared to a target over time. It is important customers perceive our saddles as high quality and therefore the overall rating is important. It is also important to be able to target the final customer when we sell to an intermediary.

SECTION 4

Setting standard costs for variances

The introduction of the new cutting machinery and the manufacture of vegan saddles has clearly had a major impact on the way we work and consequently impacts on how we should report performance and particularly variances. It can be clearly seen that it would not be appropriate to use the standard cost for the Comet even though the saddles are the same, except for the Comet using leather as opposed to vegan leather. My views on the three areas you have highlighted are as follows:

Material usage

Leather butts are bought in at a fixed size of 1.5 square metres and the standard usage is one butt per saddle. This resulted in wastage. Vegan leather is supplied in rolls and the machine's software optimizes the usage of the leather to match the quantity input for the volume of output required. The amount of leather used per saddle is now lower.

The most efficient workflow would be to use a complete roll of vegan leather for each set up and therefore the standard for leather usage should be based on the output possible from a roll.

Labour efficiency

Labour is regarded as a direct cost and the usage is monitored through the labour efficiency variance. The introduction of the new machinery has clearly changed how the leather is cut. Traditionally, cutting leather was very labour intensive but now it is very much automated. The only manual interventions are for set-ups (including inputting requirements to the software) and sorting the resultant cut pieces. These are two separate parts of the process.

The labour needed per set-up is obviously related to setting up and therefore the standard should be based on the time needed per set-up. The factor causing this cost will therefore be related to set-up and this would be the opportunity to consider using activity-based costing and activity-based variances.

Given the recommendation earlier that cutting should be performed in production runs based on using a complete roll of vegan leather for each run, the standard for sorting the pieces should be based on the expected output from that production run. The standard for sorting per saddle would be expected hours/expected number of saddles cut.

Machine efficiency and capacity

Machine usage has not previously been reported through variance analysis. However, it is now clear that the new working procedures are heavily dependent on the new machinery, and it is central to how the cutting will now be performed.

The overhead absorption rates are based on factory-wide labour hours. This, I assume, was because of its simplicity, the homogenous nature of the saddles and the production processes being labour intensive. The introduction of machinery for cutting negates the labour-intensive nature for this part of our manufacturing process.

I suggest that a separate cost centre is set up for cutting and that machine hours are used as the base for the overhead absorption rates. The usage of the machines could then be monitored through (i) the variable overhead efficiency variance, which would be based on the actual running hours compared to the standard running hours and (ii) the fixed overhead capacity variance, which would be based on the difference between actual running hours and budgeted running hours.

As with materials and labour, the standard per saddle should be based on the output from the most efficient way of scheduling production which appears to be production (cutting) runs based on using a full roll of leather.

Revised standards and budgets

Preparing budgets gives us a plan against which our actual results can be compared. Budgets may be the only quantitative reference point, so it is important that they are accurate. Using budgets means any discrepancy between planned and actual results can be investigated and corrected, providing us with a measure of control. This control is not only over the values involved but also over the performance of managers whose success is evaluated by achieving the budget.

Currently, we prepare budgets annually and use incremental budgeting. Our budgets are based on standards for each of our saddles. A standard will include elements for usage and price and the expected inflation will therefore impact on our standards and, as a result, the budget and control reports.

In terms of control, performance should be judged against a realistic benchmark and individuals should only be held responsible for what they can control. For example, a buyer's performance should be judged against current prices, not against prices prevalent before any inflation. This can be achieved by updating the standard and calculating planning and operational variances.

A materials price planning variance would be the difference between the original standard price and the revised standard price (based on the standard quantities of material needed for the output produced). This would be beyond the buyer's control. The operational price variance is the difference between the revised standard price and the actual price paid (for the quantities purchased). This variance can be controlled by the buyer and is therefore their responsibility.

Inflation on material prices and wages will mean that these will cost more and therefore more cash will be needed to pay for them than originally budgeted. The additional cash needed could be significant if the budget is only updated annually. To plan cashflow more accurately, we will need to amend the budget more frequently. This could be done using a rolling budget system.

Our current system prepares a budget for a year, and it will not be adjusted for planning purposes until the following year. Changes to the economy, such as inflation, could mean that this budget is not realistic. A rolling budgeting system would produce budgets more often. For example, if a quarterly system was used, the first quarter of the coming year would be planned in detail and forecast data would be used for the remaining three quarters. Towards the end of the first quarter, what was the second quarter's budget would be revised in more detail based on the available information at that date. A further quarterly budget would also be prepared so that a yearly budget was available.

The rises in materials and wages will impact on our profit margins and to maintain profit margins we would have to increase selling prices. There could also be an impact on demand for our products. This in turn will change the amounts of resources we use, and the funds needed to pay for them. Therefore, revising our standard costs to reflect this and updating our budgets on a rolling basis will allow us to plan more effectively for such a change. In terms of control, the changes in volume are acknowledged in the variances we report for all variable items. The variances we report are based on the levels we are operating on at that time.

Impact of inflation and new assets

Operational gearing

Operational gearing is a measure of the relationship between the variable and fixed elements of our cost structure. Variable costs are those which, in total, alter directly with the volume of saddles being produced, such as the amount of leather used. Fixed costs do not alter directly in relation to production but rather may alter over time such as buildings, machinery and insurance costs. The addition of the new machine will impact on our variable costs (for example, power) and increase our fixed costs (for example, planned preventative maintenance). A higher level of operational gearing, which is having a higher proportion of fixed costs, makes it more difficult for us to adjust in times of economic volatility such as a recession.

Based on the budget for the year ended 31 December 2024, budgeted fixed costs are K\$1,151,000 and budgeted variable costs are K\$2,831,000. Fixed costs are difficult to change quickly, for instance, in response to changes in the economy which lead to changes in costs and then ultimately production and sales volumes. For example, if a direct labourer does not work, we don't have to pay the wages, but if a machine stands idle, we must still pay the fixed costs relating to that machine. Thus, operational gearing is very important.

A cost structure that a comparatively high level of fixed costs will mean that the contribution margin is high. This is good when sales volumes are high because the incremental profit from the sale of one more unit will also be high because there will be no change to the fixed costs. However, if sales fall then, it will be bad for the business because the fixed costs will still have to be covered.

Higher levels of operational gearing will affect the breakeven point as a higher contribution will have to be earned to cover the fixed costs. However, once the breakeven point has been achieved, the contribution per unit is effectively profit per unit because the fixed costs have already been covered.

Inflation could impact on the demand for our saddles and, because we have high levels of fixed costs, it will be difficult for us to act swiftly to reduce our costs. This will potentially reduce our profits quicker than those of a company with low operational gearing (which would be able to avoid paying its variable costs).

It may be possible to change levels of operational gearing by altering the fixed and variable cost ratios. For instance, where employees are currently on salaries, it may be possible in some cases to move them to day rates, making it easier for managers to adjust the workforce number to match current requirements. A potential disadvantage of such a course of action is that it can be demotivating for staff and may lead to highly-skilled staff being lost.



AICPA® & CIMA®

Together as the Association of International
Certified Professional Accountants

OPERATIONAL CASE STUDY

MAY & AUGUST 2024

EXAM ANSWERS

Variant 2

These answers have been provided by CIMA® for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1

Purchase of Bard asset

In accordance with IAS 16, the BL23 should only be recognised as an item of property, plant and equipment once it is probable that the economic benefits of the machine will flow to Kanann. This is not yet the case as the purchase of Bard's assets is still under negotiation.

When it can be recognised, it will initially be measured at its cost. This cost will include the K\$30,000 purchase price and also the K\$4,000 delivery and the K\$1,000 levelling of the factory floor costs. This is because the cost of an item of property, plant and equipment can include any costs which are directly attributable to bringing the asset to Kanann's factory and to make it capable of being operated.

The K\$500 servicing cost is an annual service to maintain the warranty and as such is an ongoing cost of operating the machine, rather than directly attributable to getting the machine ready for use. This cost should therefore be recognised in the statement of profit or loss as incurred.

The K\$900 training cost to allow existing employees to install the BL23 machine will also be recognised in the statement of profit or loss. This is because it does not meet the definition of an asset. Whilst such training may lead to future economic benefit for our business, we cannot control the staff, as they are free to leave the business at any point.

Produce or buy-in decision

Financial

From a financial perspective, the decision should be based on relevant costs. For a cost to be relevant, it must satisfy all three of the following criteria: cash, future and arise because of the decision.

It could be assumed that the relevant cost of buying in buckles is the purchase price quoted by the supplier. But we need to check to see if any other costs relevant to the decision will be incurred. For example, this could include extra work, resulting in incremental costs, for our purchasing officer and delivery and goods-receiving costs.

The in-house costs need careful consideration. It could be assumed that the direct material and direct labour have been estimated from the product specification/designs for the buckles and as such should be accurate. But this is our first time making the buckles and our inexperience could cause those costs to rise. However, these are very likely to be relevant costs.

The variable production overheads are based on the budgeted absorption rate for this year. This was based on our anticipated production, plant wide-expenditure and the assumption that variable overheads were related to labour hours. Will those assumptions hold for bridle production: Will the incidence of variable overheads when producing buckles be the same as when producing saddles? If so, the variable costs absorbed can be used as being representative of the extra variable overheads that will be incurred when producing the buckles and as such will be relevant costs.

Similarly, the assumptions about the use of the fixed overhead absorption rate should be challenged. However, for fixed overheads, we also need to consider if producing the buckles will cause fixed overheads to rise. This is unlikely unless there are specific fixed overheads incurred for bridle production. It is those specific fixed overheads that would be relevant, not fixed overheads absorbed by using the absorption rate. The specific fixed overheads will include the cost of any new machinery used for the purpose of buckle production.

The relevant costs of production (which, subject to further information, we will assume are the variable costs of production) and buying in should be compared and the cheapest option chosen. Based on the information in Table 2, and the above assumptions, we would make the buckles for the throat lashes and nose bands (K\$264 and K\$310 are lower than K\$358 and K\$406) but buy-in those for cheek pieces (K\$185 is lower than K\$193).

The price quoted for the buckles for cheek pieces is lower than our variable costs of production. This should be checked to see if that price is a special deal: it is worrying that it is lower than our variable costs and points to either a special deal by the supplier or errors and/or inefficiencies in our production process.

Non-financial information

In addition to the financial issues identified, we will need to consider non-financial issues as well. In particular, we are looking to establish a good reputation in a new market. Therefore, it is essential that the quality of the suppliers' buckles is high. A poor batch of buckles as we are establishing ourselves could have long-lasting implications for sales volumes.

Equally important is the reliability of the supplier and their ability to deliver in line with our requirements. Not only in terms of the timing of deliveries but also in relation to the volume of buckles required. Failure to deliver in line with production schedules would lead to us incurring additional costs, as workers will be unable to continue manufacture of the bridles and we would have to pay them for idle time until production could recommence when the buckles finally arrived.

This would be the first time that we have made buckles. We would need to recruit staff with the necessary skills to use the machines. Alternatively, we could retrain some of our existing staff, although this may have a knock-on effect on the production of our saddles.

Age analysis of outstanding trade receivables

The accounts receivable balance should be reviewed regularly as part of monitoring overall working capital and corrective action should be taken as required. An age analysis of the trade receivables is a list of all customers who owe the company money. However, rather than just having the total amount for each customer, as we do in the information in Table 3, we will also show an analysis of the total balance split into time periods.

This will then allow us to understand how long Bard's customers have owed money to Bard. We can then use this analysis to identify the debts which have been outstanding to Bard the longest. For instance, Total Equine has a total balance of K\$14,000, of which K\$11,000 is over 90 days old. In addition, it will also allow us to identify those customers of Bard who have amounts outstanding for more than the agreed credit terms. For instance, Argent Equestrian Supplies, which has a balance of K\$24,000, compared to an agreed credit limit of K\$20,000.

Identifying these customers will then allow us to concentrate our resources on pursuing payment from these customers to bring the accounts back within their agreed credit limit or bring payments up to date as required. It should also allow us to begin debt recovery processes for those customers who are disputing balances or maybe facing financial difficulties.

An age analysis will also allow us to understand how efficient cash collection is. There is some suggestion that Bard's cash collection may not be that efficient. As we can see from the information in Table 3, despite Bard having a credit period of 30 days, the top four receivables have at least K\$500 outstanding for more than 90 days. In

fact, Total Equine has K\$11,000 over 90 days old, which is most of the total balance and would call into question whether the debt will be repaid.

Including the credit limit within the aged trade receivable report is also useful for monitoring. This shows the maximum outstanding trade receivable balance each customer should have with Bard. The limit is based on the customers' ability to pay and/or risk of default. Monitoring this allows us to ensure that new products are only shipped to customers within their existing credit limit. For instance, Argent Equestrian has a limit of K\$20,000 but a total balance outstanding of K\$24,000. This debt over and above the agreed credit limit may be a risk to Bard as the customer may not be able to repay. However, it may be that the customer is a rapidly growing new customer who would benefit from a higher credit limit subject to the proper checks.

However, an aged report will not answer all our questions initially and further review will be required. For instance, where round sum payments are made, as is the case with Argent Equestrian which pays K\$3,000 per month, it may be difficult to determine which debts are being paid. This is because it can be difficult to allocate payments to specific invoices which are outstanding as it may not be clear which ones are being paid. In addition, it is also important to ensure that all credit notes and other adjustments to balances are updated accurately and regularly.

SECTION 2

Inventory measurement

The general rule for all inventories under IAS 2: Inventories is that they should be valued at the lower of cost or net realisable value (NRV). Cost includes the allowable costs of conversion and bringing inventory to its present location and condition. NRV is after any costs to complete the sale which may be required.

250 Brown snaffle bridles

At first glance, it looks like the bridles should be valued at a cost of K\$23,000 as this is lower than the NRV of K\$25,000. However, there are selling and distribution costs of K\$3,000 which should be deducted from the NRV. This reduces the NRV to K\$22,000 (K\$25,000 less K\$3,000). This is lower than cost and is the value the bridles should be included in Bard's statement of financial position.

Specialty leather

The leather should be valued at the lower of the NRV of K\$12,000 and the cost of buying the leather initially of K\$10,000. This higher NRV will be due to the leather being processed and assembled into bridles. In this case, K\$10,000 is lower than K\$12,000 so the value of the leather should be K\$10,000. The K\$8,000 cost is irrelevant as this is the replacement cost of the leather.

100 black double bridles

The figure in the table for NRV ignores the remedial work that is needed to bring the bridles to an acceptable standard for Deeland's health and safety requirements. We will have to pay 40% of the K\$3,500 remedial work and therefore the NRV is K\$19,000 minus our part of cost of the remedial work. To determine the correct valuation, we need the lower of this adjusted NRV and the cost of K\$16,000. The correct valuation is therefore K\$16,000.

Short-term investment methods

Issuing a certificate of deposit (CD) or a bank deposit account have been suggested as alternative short-term investments for the funds Kanann are holding. Both a CD and a deposit account at a bank require money to be deposited, while both also record the amount of money deposited as well as other terms and entitles the holder to repayment on those terms.

We do not know with certainty when the funds will be required, but it may be up to 180 days after they are received. In addition, we will only have 5 days' notice of the funds being requested so flexibility will be key.

Whilst it is likely we will be able to withdraw funds from the bank account, as long as it is not a fixed-term account, there may be a penalty for doing this at short notice. Where such a penalty occurs, this may be partial or total loss of interest over a period.

CDs on the other hand have a secondary market, therefore it may be less costly and easier to sell them in the short term in that market than to close a deposit account. In fact, it may be that we could purchase them from the secondary market in the first place.

Where there is no little or no penalty for withdrawal of money from a deposit account, this will be reflected in the level of interest received for the deposit. The more flexibility there is to withdraw, the lower the rate. Due to the increased liquidity which comes from the secondary market, yields on CDs can be slightly lower than for some other forms of short-term investment. As such, neither investment will return high amounts of interest.

Whilst neither investment is a perfect solution for our issue, the CD allows us to buy and sell in a secondary market, giving us greater flexibility and therefore I would recommend a CD.

Use of rolling budgets

Incremental budgeting versus rolling budgets

Incremental budgets are set at the beginning of a period. We use an annual incremental budget whereby the budget for the year is prepared and set before the start of the year and then remains in place for the whole of the year. The amounts included are determined by increasing the prior year's costs for general cost increases, such as inflation or other specific items. This necessitates estimating what will happen over the next year and basing our budget on that uncertainty.

In contrast, rolling budgets are updated on a monthly or quarterly basis during the current year. This means that in a rolling budget as one quarter is completed, a further quarter is added to the budget. This means the budget always covers the following 12-month period. This regular updating entails looking at the nearest period in greater detail and using up-to-date information to refine that, and the budgets for later periods (although not in as much detail). We would always have a budget covering a year (it is on a rolling basis), but the earlier periods in the year would be in greater detail.

How rolling budgets would improve planning

Incremental budgeting is a suitable method for stable environments and costs. However, we are currently facing a new market where we will face competition from other bridle manufacturers. We are also introducing changes within our production teams to accommodate the production of new bridles. All these increase uncertainties such as sales volumes, production methods and efficiency of production. Using rolling budgets will mean that managers are working with the most up to date and relevant information available. The budgets will have been reviewed and updated regularly to reflect new circumstances.

We have no experience in the manufacture and sale of bridles. We do not have our own sales history information about sales of bridles and will have to rely on external market reports. As such, our forecasts could be inaccurate. By using rolling budgets, we will be able to respond quicker to errors in our planning that will be highlighted by shifting sales and production volumes.

The budget setting process starts with the identification of the principal budget factor. This is the factor which limits the size of our activities. Unless we have scarce resources, the factor in question is bridles sales volume. It is therefore of vital importance that our sales volume forecast is as accurate as possible, given that all our budgets will be driven by the forecasted sales volumes.

The budgeted sales volumes, linked to our inventory policy, will determine the production volume budget. The production budget will determine the resources we need to be able to meet our production budget. The resources could be machinery and running times, labour and materials. We can then check to see if we have the necessary resources available. If not, we need to acquire them. For example, we will need leather for the bridles. We would check to see if we have sufficient inventory of the leather to enable production to take place. If we do not hold enough leather, we need to purchase more leather. This will involve sourcing a supplier and then arranging delivery to match our production plan. The amount we pay for the leather should be judged against the current market prices. This is another benefit of updating the budget: the up-to-date information is a better benchmark for control.

If the pattern of demand shifted and we did not have the resources available to meet the updated budget, we would have to identify the optimal way to use our resources. This could be to maximise profit or to satisfy the demands of a particular market, product or customer. Resources would then be ring fenced for the products that have priority. The use of rolling budgets would enable the actions to be taken to be anticipated and responded to earlier than with an incremental static budget for a year.

The use of rolling budgets would enable Kanann to be more responsive to changes in the market. This would result in better planning and resource acquisition and utilization.

SECTION 3

Labour and fixed production overhead variances

Labour rate

This is calculated as the difference between what we paid and what we should have paid, based on the standard, multiplied by the actual hours worked. The adverse variance means we have paid more per hour than we should have according to our standard.

Given the shortage of suitable labour in the market, perhaps we had to offer a higher rate of pay to entice the workers to join Kanann. If so, and it is to be a permanent feature, then the standard should be revised. The premium for overtime working will not be included here: it is our policy to treat overtime premiums as part of variable production overheads.

Labour efficiency

This is calculated as the difference between the hours actually worked and the hours that should have been worked to achieve actual production multiplied by the standard labour rate of pay.

The variance is adverse, which means that the workforce was not as efficient as it should be and took longer to produce the bridles than planned. This could be because they had to be trained and it was the first time that we had made bridles.

Fixed production overhead expenditure

The expenditure variance is adverse, which means that expenditure on actual fixed production overheads for the period was higher than budgeted. The budget has not been revised from the original one which was set at the start of the year and does not include the impact of bridle production.

There will be many reasons for this adverse variance, including the impact of bridle production. This impact will include the cost of additional indirect workers for bridle production as well as the costs associated with the additional machinery purchased.

Fixed production overhead capacity

The capacity variance is favourable, which means that we worked more hours than we thought we would have available based on the original budget. This is to be expected given that for bridle production we have recruited an additional four workers from the original budget. It would have been higher if we had recruited the fifth worker and more hours had been worked.

Fixed production overhead efficiency

The efficiency variance is favourable, which means that across the factory we have used less labour than we thought we would need for the actual output produced.

The labour for, and the output of, bridles will be part of this variance. Without the bridle production (where the labour efficiency was adverse), the fixed production overhead efficiency variance would have been more favourable. This shows that, in general, throughout the factory, our labour force working on our usual products is working efficiently. Given the use of the factory-wide system, it is not possible to narrow this down to functions or product-related activities.

Key performance indicators

Labour efficiency percentage

This would be calculated as labour hours expected for actual production divided by actual labour hours worked, expressed as a percentage. The labour hours expected can be obtained from the standard cost cards of the products made in the period and the volume of output. The numerator and denominator have been arranged as such so that if labour is efficient, the percentage figure displayed will be more than 100%.

The KPI would be appropriate because it would be readily seen if the efficiency is what was expected. A figure of more than 100% shows that the workers are performing well, whereas a figure below 100% shows that expectations have not been met. This would point to the need for the reason to be investigated.

Machine utilisation percentage

The KPI would be calculated as actual machine hours for the period divided by machine hours available in the period, expressed as a percentage.

The KPI would be appropriate because it readily shows the percentage of unused time for the machinery. The target for the KPI would be 100%. A return of less than 100% would highlight under-utilized resources and could be used to prompt investigation as to possible reasons. This could point to machine breakdowns or possibly prompt a review of production methods.

Product quality

The KPI would be the number of products returned by customers in the week. Although the returns would not specifically refer to that week's production, it provides a readily identifiable indicator of product quality. This can be amplified if previous weekly returns are also given so that a trend can be seen.

The KPI is appropriate because it is readily understood and points to production quality. Reasons for the returns could then be investigated, problems identified, and remedies sought.

Ethics when choosing a supplier

The decision to move to an alternative supplier should be based on both financial and non-financial factors and take into account ethical considerations. It could be argued that the aim of a business is to generate a return for the shareholders. One way to increase the return would be to lower the cost of production and source resources from the cheapest supplier.

However, that immediate focus on the financial perspective could be a short-sighted decision and ignoring non-financial issues such as reliability of supply and product quality will have major implications. Similarly, ethical issues could have an impact. For example, the reputation that a supplier could have for poor employee treatment could lead to our customers not buying from us and ultimately impact on our sales and profits.

We face many ethical dilemmas in doing business and our moral principles should lead us to question what is right or wrong. Acting ethically means going beyond the legal and financial impacts of decisions, including the choice of suppliers, to consider a wider set of viewpoints to create and preserve organisational value for stakeholders. Being seen to be 'morally correct' can give rise to benefits such as lower business risks and being attractive to potential employees and customers.

It can be seen that the choice of supplier should not just be based on the immediate financial aspects of the decision, and that ethics has a major part to play.

SECTION 4

Current cost system and the problems that arise from using it

At the very basic level, the purpose of our costing system is to determine how much it costs us to produce a saddle or now a bridle. Knowing the cost enables us to plan, control and make more informed decisions, for example, about the pricing and therefore profits of each type of saddle and going forward, bridles.

The costs of making saddles and bridles will include direct costs and indirect costs. The direct costs are ones we can see, or trace, directly to each product. For instance, the leather for a saddle or the labour time to stitch a bridle. These costs are easy to record as they simply match the cost to the product. They are also easy to plan for: we know that a saddle should take one butt of leather and therefore how much leather will be needed in total for the output for a period. This is part of the budgeting process. Similarly, they are good for control: we can measure the number of butts of leather we have used and compare it against the number of butts we should have used. This comparison then allows us to calculate and report variances.

More problematic is indirect production costs or production overheads as they are often referred to. These costs, such as lighting in the Production Facility, are incurred so that it is usable but can't be linked directly to individual saddles or bridles, unlike leather for instance. Therefore, it is only fair that everything we make bears some of this cost. The problem for costing individual saddles or bridles is how to share costs.

Our costing system is currently very basic because it has not evolved from the days when "a saddle is a saddle." In the past, there was little difference between the work done on different saddles because effectively our saddles were basically all produced in the same way, even though we have different ranges. Therefore, it was fair to say that each saddle should bear an equal share of the overheads because they were almost identical and had followed almost identical processes.

Our current system is to collect all the production overheads (split into fixed and variable) and share them out to saddles based on the standard labour hours that are needed to produce that saddle. This system assumes that labour hours and production overheads are incurred in the same way and that it is a fair and equitable way to give the overheads to the saddles. This may have been the case when our saddles were all very similar and everything was labour intensive. However, our product range is growing, and our production methods are changing to include more automation. Because of this, the saddles and bridles and individual products within those ranges will not necessarily go through the same production processes.

We operate a standard absorption costing system. This means that in addition to the direct costs of a saddle, for instance, we absorb fixed and variable production overheads into the inventory valuation of the saddle. This is necessary to comply with accounting regulations. The use of a factory-wide absorption rate is based on factory wide overheads (we do not account for the overheads in cost centres other than separating overheads into variable and fixed). This means we have no data to give

insight into to which departments or functions, such as cutting or stitching for instance, incur the overhead costs.

Cost centres with individual absorption rates and activity-based costing (ABC)

The benefits of setting up cost centres with individual absorption rates

Freya's suggestion that we should set up cost centres means that we should allocate or apportion production overhead costs to specific departments or functions (a cost centre is the name given to a collection point for costs). This would then allow us to see which centres are incurring costs and improve planning and control. We would then need to absorb the production overheads in those centres into the products we made. Looking at the characteristics of each specific cost centre will help us choose the method to use to absorb the overheads. We need to look for a link between the method we choose and the occurrence of the overhead. For example, if a centre is machine intensive, such as cutting for example, a large proportion of the overheads will be caused by the machinery (with power being a variable overhead and planned maintenance a fixed overhead). In that case, machine hours could be assumed to be a fair method of absorbing costs.

As the saddles, for instance, move through different cost centres, they will then absorb overheads in relation to the work done on them in each specific cost centre. With the introduction of bridles into our product range, saddles and bridles will pass through differing centres and will be worked on in differing amounts. So, for each of them, they will use different cost centres and specific overhead absorption rates to absorb the overheads in the centres they pass according to the work that is done on them. Therefore, using multiple centres, each with its own specific absorption rate, will enhance our ability to plan and control. Knowing a more representative value for the total cost of producing a saddle or bridle is better than our current system which assumes that all overheads are related to labour hours.

The additional benefits of ABC

ABC aims to make the link between overhead costs and products even stronger than traditional absorption costing by identifying links between those costs and the activities that cause them and how our saddles and bridles consume the resources through the activities. To implement ABC, we would need to investigate our production processes for both saddles and bridles and identify activities that cause cost.

We would then need to identify the cost driver, that is, the factor that causes the cost to be incurred. For example, the cost of setting up a machine to cut a specific piece of leather for a production run for a type of bridle would be the need to set up for a batch of such pieces. This would then help us to plan as we would know what the driver for those set-up costs would be per batch. Knowing that batches of production cause set-up costs should then prompt us to make longer production runs to reduce the number of set-ups and reduce costs. So, we have now moved from absorption rates to cost drivers.

Costs with the same cost driver will be grouped into cost pools and then the cost of each cost pool will be absorbed into each product in line with the resources consumed by the saddle or bridle (how much of that driver it uses). Consequently, the cost of making a specific type of bridle or saddle can be estimated with greater accuracy. This increased accuracy will enhance the benefit of the information produced and how management use it for decision making.

Setting up cost centres and using specific absorption rates would improve the link between our diversifying product range and how each product consumes specific costs in those centres. ABC refines the link even further by aiming to establish links between products and the costs of activities required to manufacture them. Knowing how our products cause activities to be performed and how those activities cause costs will enable us to plan and control with great accuracy.

Time series

Time series analysis and four point moving averages

Time series analysis rests on the assumption that there is a relationship between sales and time periods. Therefore, for the data in the graph to be useful for time series analysis, there must be a recognizable correlation between sales and time periods. If so, the pattern of sales can be analyzed to establish a trend line. The trend line can be established by applying linear regression analysis, line of best fit, or the high-low method.

If there is a repeating pattern within the variations in data, moving averages can be used to smooth the data. For example, if there was a repeating pattern of daily sales each week, then a seven-point moving average could be used to smooth the data. I assume Freya has suggested a four-point moving average because the sales data is in quarters, and it might be thought that there are fluctuations per quarter. To calculate the four-point moving average points, we need to calculate the averages. The first average would be the average of quarters 1 to 4. This would correspond to the mid-point of that period and would therefore be between quarters 2 and 3. This does not fit with our view of quarters, but this can easily be overcome. The second point would be the average of quarters 2 to 5 and would be aligned with the mid-point of quarters 3 and 4. If we take the average of the two values, we have calculated we can then plot this to correspond to quarter 3. This means that in the four-point moving average plot, the first value we can plot is for quarter 3. Similarly, the last value we could plot would be at quarter 20.

Having now smoothed the data by using moving average, we still need to identify the trend so that we can extrapolate to produce a forecast. Linear regression, line of best fit or the high-low method could be applied to the smoothed data. Given that the last point we have for the moving average is quarter 20, we will be extrapolating for at least four quarters to produce a forecast.

Difficulty of application to Bard's data

Looking at Bard's data, there does not appear to be a quarterly pattern (or any seasonality) and therefore it would not appear to be worth using moving averages, as there is no advantage to smoothing the data before further analysis.

Whichever method is used to determine a trend line, we would then need to calculate seasonal adjustments to enable the forecast to be more accurate.

There appears to be four distinct areas in the graph: Q1 to Q13, Q13 to Q17, Q17 to Q21 and Q21 to Q22.

Looking at Q1 to Q17: sales rose throughout the period, and it could have been thought appropriate to apply linear regression to extrapolate sales from that period to future quarters. However, for the extrapolation to produce accurate forecasts, the future months must follow the pattern of the previous months. We can see here the pattern of sales from Q1 to Q13 does not follow through to Q14. Similarly, Q13 to Q17 does not extrapolate to Q18 and Q17 to Q21 does not extrapolate to Q22.

We can also see that sales of Bard's bridles rise rapidly from Q13 to Q17, fall slightly from Q17 to Q21 and then fall sharply from Q21 to Q22. This may have also been the case in sales of bridles in the market as a whole following those of Bards. However, we require further information to confirm this.

A visual inspection of the trend from Q1 to Q13 and then estimating the extrapolation of that to Q22 would give a forecast for Q22 close to the actual value of Q22. This may suggest Q14 to Q21 sales are due to unprecedented interest in equestrian activities, leading to increased demand for bridles with the market dropping back to normal in Q22. However, it would be dangerous to assume this without further investigation. Data for Q23 and 24 (for Bard or the overall market) would be informative.

I can see little advantage in using four-point moving averages given the lack of seasonality in the sales. Time series analysis based on linear regression, line of best fit, or the high-low method could be of use (accepting the limitations of such methods) if Q14 to Q21 can be ignored and Q22 is assumed to be the market returning to the level that fits with an extrapolation of Q1 to Q13.

However, the accuracy of the forecasts made would be subject to several limitations. For instance, we have assumed that there is a straight-line trend between quarters and sales volumes, which may not be the case.

As we are extrapolating future sales from historical data, we have assumed that future quarters will follow the same sales pattern as previous ones. Looking at the data in the graph, this does not appear to be the case, as there is a distinct increase in sales in Q14 to Q17, after which sales appear to plateau. This is a markedly different position from Q1 to Q13 and means that for Q22 onwards there may be a different sales pattern.

The model also assumes that all seasonal variations are constant and, again, in Q17 to Q22, this does not appear to be the case, with sales flatlining compared to some seasonal variations seen in Q1 to Q13.



OPERATIONAL CASE STUDY

MAY & AUGUST 2024

EXAM ANSWERS

Variant 3

These answers have been provided by CIMA® for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1

Difficulties of costing the development and use of the app

The app is not a product that will be sold. It is for internal use and is the link between the digital measuring device and the computer-controlled cutting machines. The app will be part of the production overheads for bespoke saddles. As with other costs, it is necessary to determine the cost of the app for planning, control and decision-making.

A major problem is that this is the first time Kanann has been involved with this type of technology. How will we acquire the skills, hardware and software that will be needed to develop the app? Would it be better to buy-in an app rather than develop it ourselves? This would make the costing easier as we would be quoted a price for the development of the app and a price for using it.

The app has only one use: it is specific to bespoke saddles and as such the costs can be allocated to that product and then shared over the volume of saddles sold. Bespoke saddles cannot be made for inventory as each saddle will be unique to the horse that it was made to fit. Therefore, the key factor to consider is how many saddles will be sold rather than how many horses will be measured.

The costs for the app will be based around four key areas: the functional aspects of the app such as push notifications, so systems are aware of a new set of measurements being received. Administrative aspects such as updating the app. Infrastructure such as developing data storage for the measurements and IT support to ensure the app's performance is monitored and maintained.

Most of the above costs will be incurred during the development phase and many ongoing costs, for example, maintenance will be fixed. The marginal cost of using the app will be comparatively small. It is said that digital products are expensive to produce but cheap to reproduce.

The development costs of the app will be capitalised and then amortised over the life of the app. Predicting the life of the app will be difficult given rapid changes in technology coupled with our lack of expertise in this area. It should be remembered that this is the first time we have been involved in this area and therefore estimating and then controlling the costs involved in developing the app will be difficult. It will also be difficult to forecast the sales volume of bespoke saddles during the lifespan of the app.

Difficulties in controlling the production cost of bespoke saddles

We currently control costs using a standard absorption costing system. A standard cost is based on technical specifications for the material, labour time and other resources required and the prices and rates for the materials and labour.

While each bespoke saddle will be unique to the horse it is made for, the overall saddle is very similar to what we already produce in our standard saddle ranges. Therefore, it could be thought that we already understand the specification of direct resources needed to produce the saddle itself. This means we should be able to, relatively easily, estimate a predetermined unit cost based on standard specification of the resources needed. However, the production of bespoke saddles has major differences compared to how we have previously operated.

The first major difference is that a horse needs to be measured. This necessitates a fitter travelling to visit the horse. Each visit will be different in respect of the mileage driven, and time taken, by the technician to reach the premises and the time to achieve the measurement. Although it is estimated the device can measure a horse in 4 minutes, there are other factors that will impact on the time on site, not least how acquiescent the horse is to the process! Therefore, we need to find appropriate ways to control travel expenses and times per visit. This could initially be difficult to estimate as we have no prior experience of this or data from which we can extrapolate.

The leather pieces needed for a bespoke saddle will be cut by a computer-controlled machine. This will presumably reduce the amount of direct labour in the cutting process. We will need to think about controlling the cost of the machinery. Some costs will be fixed (depreciation and maintenance costs) and others will be variable (running costs such as power). We will need to determine the most appropriate driver of the variable costs to be able to forecast and therefore control these costs.

The machinery and the measuring device will be assets and therefore their costs could be controlled as we do for other assets currently used elsewhere in the business. Their control could be easier if they are directly linked to the bespoke saddles, but it is possible that the cutting machines could be used for our existing products too.

Currently, production overheads are absorbed using a factory-wide rate based on labour hours. This is not appropriate for controlling machine-related costs. Given the change to computer-controlled cutting machines, it would facilitate better cost control if a cost centre was set up solely for “cutting machines” and appropriate drivers of those costs were identified.

Big data and sales budgets

Big data

Big data is the term used to refer to large volumes of data that are available. This data is often in digital form and is predominantly not internal to specific organisations and therefore can be accessed by anyone. Big data can come from a range of sources including:

- Media (including social media): press reports, podcasts, industry briefings, YouTube, Facebook, X (formerly known as Twitter) or TikTok.
- The web: data on the web is widely available and can be accessed quickly.
- Machine generated: obtained by programming machines to search for what is needed.
- Data bases within organisations: this would be our own records relating to customers, suppliers, inventory and so on.

Benefit to the production of our sales budgets?

Budget forecasts for sales can be subjective and subject to uncertainty. This is a concern given they underpin the production of other budgets. This is especially the case for us currently where we are looking to diversify our product range. Sales volume is often the principal budget factor and therefore will impact on all our other budgets, for example, production and cash flow budgets. The state of the economy, perceived quality of our saddles and the actions of competitors will impact on the prices we can charge.

If any of the individual sales budgets do not reflect the current position accurately, then this will mean our ability to manage performance and make decisions will be adversely affected. As such, it is important that the data used to produce the sales budgets for our products is as accurate as possible, up to date and reflects the real world as objectively as possible.

Gathering big data from areas such as the media, including social media, the web, and other data bases, will allow us to answer questions such as whether our competitors will attempt to match or better our new bespoke saddle, or if customers are looking at alternative products such as non-leather saddles. This data, some of which may initially be non-quantifiable, (such as potential changes in customers' taste in saddle design) will impact on the demand for our saddles. By including big data in our budget planning, it will allow us to understand consumer trends more quickly, which is especially important when developing a new product, to ensure that we retain our competitive advantage within the bespoke saddle market.

Big data can reduce the uncertainty in budget estimates and validate assumptions. It does this by filling in gaps or providing new information and increases the awareness of industry and economic changes. The big data available could encompass a vast number of variables which could have impacts on our sales. Big data could range from the number of planned equestrian competitions to economic forecasts. Over time, we should be able to identify stress events.

Organising this data into structured and useful information will be time-consuming and expensive. Big data analytics must overcome the characteristics of big data: volume, variety, velocity and veracity.

Big data could be very useful for Kanann and highlight factors that will impact our sales volumes and prices. However, our ability in terms of skills, capabilities, hardware and software to undertake the necessary big data analytics must be assessed.

SECTION 2

Sale of ZZ3

The agreement to sell asset ZZ3 to LLL Engineers was completed on 30 December 2024. However, the asset will not be treated as a disposal until LLL Engineers have control over the asset, which will be after it has been transferred.

Therefore, at 31 December 2024, because the ZZ3 asset is not being used, has not yet been sold and its carrying amount will be recovered primarily through being sold, it should continue to be classified as a non-current asset for sale. The asset held for sale will be classified as a separate category of current assets in the statement of financial position. Depreciation of the asset will have ceased on 30 November 2024, which is the date that the asset became held for sale.

The ZZ3 will be shown at the lower of its carrying amount and its fair value less costs to sell. The carrying amount is K\$18,000 and the fair value less costs to sell is K\$17,000 (K\$20,000 – K\$3,000). The asset must be written down in the financial statements to the fair value less costs to sell of K\$17,000 and the K\$1,000 reduction in value will be charged against profit for the year to 31 December 2024.

Tax depreciation and sale of asset

Selling the AX1 will lead to a profit or loss on disposal in the financial statements. This is calculated based on the difference between the carrying amount of the AX1 in the financial statements (K\$32,000) and the proceeds from the sale (K\$21,000). The carrying amount is the K\$80,000 cost of AX1 less the accumulated depreciation of K\$48,000. By using 10% straight line depreciation, Kanann believe the assets value will fall equally each year over its 10-year useful life (UL).

Other companies may use a different method such as reducing balance, to spread the cost of an asset over its UL. They may also use a different percentage which may be higher or lower than the 10% used by Kanann in its calculations. Using different methods of depreciation and different percentages will affect the amount of depreciation expense charged to the statement of profit or loss. Higher percentages and reducing balance methods mean higher amounts of depreciation are charged earlier in the asset's life. Therefore, if a company was allowed to use their depreciation rate as a tax allowable expense in the corporation tax calculation, then this would increase allowable expenses, reduce profits and ultimately reduce the corporate income tax paid.

Because of this, the Keeland tax authorities dictate the method and percentage of depreciation of an asset which is allowable for tax. Tax allowable depreciation is currently set at 25% reducing balance. This means for the Kanann tax return, a tax depreciation allowance of K\$65,761 has already been made against profit for the AX1.

This gives a written down value in the tax return of K\$14,239. This means when we sell the asset for K\$21,000, we have effectively over claimed tax allowances previously for the asset and therefore we must include a balancing charge for the difference

between K\$14,239 and K\$21,000. This will increase our tax charge for the year to 31 December 2024.

Time series

Time series analysis aims to identify underlying historic trends and seasonal variations, in this case in sales, and use them to extrapolate the trend and thereby forecast sales in future periods. This obviously relies on having historical data available on which to base the analysis, which, will not be available for bespoke saddles. It also relies on a series of assumptions which are used to simplify the real-life position.

To identify the trend line, it is possible to use regression analysis, the high-low method, or moving averages. It is important to limit the analysis to a relevant range irrespective of which method is used, but it can be difficult to determine what that range is. For example, if data is available for the previous 10 years but there was a major change in the economy that impacted on sales from year 6 onwards it would be better to use only the data from year 6 onwards rather than the whole 10-year period.

Whilst the accuracy of the trend line produced can be improved and reviewed by the addition of more data over successive periods in a constant economic climate, this model will always be one which looks backward. This means that there may be limitations in its accuracy, especially for a new product, as there may be changes, for instance, when competitors enter the market with products like our bespoke saddle and thereby possibly leading to a significant change in demand. In addition, the current level economic volatility caused by 12% inflation and its effect on saddle sales will reduce the level of accuracy and relevance of historic data.

For our new bespoke range of saddles, we do not currently have historic sales data, so the only data on which we could base our forecast is sales of existing saddles. The accuracy of this forecast would then depend on how similar sales for the bespoke range are to our existing ranges. This information would form the basis for the assumptions on which the trend line is formulated.

Alternatively, we could try to use available information relating to sales of saddles that are like our bespoke saddles made by other companies. Identifying and analysing that data could be difficult and very subjective. For example, is our saddle a direct substitute for a competitor's and how much of that market are we likely to gain?

There is an assumption that seasonal variations will play a part in sales forecasts. These variations can be dealt with using either a constant absolute value (the additive model) or a proportionate value (the multiplicative model). The difficulty is in identifying what causes such variations to test if they will continue in the future across all our products. For example, it could be that there has traditionally been an increase in sales of our basic saddle in the build up to the start of the Keeland equestrian competition season when less experienced riders compete. However, this assumption may not be valid for the bespoke saddles which might appeal to top level professional competitors

who travel throughout the world to compete and therefore do not have a specific competition season.

SECTION 3

Saddle-fitting team size decision: risk and statistical analysis

The decision here is to decide on the size of the saddle-fitting team to be recruited to generate sales of the new bespoke saddle. The monetary values in the table are the contribution per week that would be generated by each combination of the size of the fitting team and the size of the market. The values have been calculated based on the revenues and costs relevant to that combination.

The values do not give any indication of the likelihood of the combinations arising. To do this and present a picture of the risks attached to the decision, probabilities of the differing levels of sales have been estimated and statistics have been calculated.

Expected value (EV)

This is the long-run average of repeating the situation many times. For example, with 5 fitters, if we encountered the situation many times, the average of the outcomes would be K\$3,564. This is calculated by multiplying each outcome by the corresponding probability for the market size and then summing the values. EV would be used by a risk neutral decision taker and the choice would be eight saddle fitters because this gives the highest EV.

EV reduces the four possible outcomes for each team size to single values. The single values do not show the possible spread of values. The EV of K\$5,856 for a team of eight fitters does not show what the actual possible outcomes could be. For example, it does not show that there is a 13% chance that will be a loss of K\$4,800 where there is a low demand.

Standard deviation

This is a statistical measure of the range of the possible outcomes. It is a measure of the spread of the outcomes from the EV. A decision taker who is looking for the safety of working with a narrow range of possible outcomes would choose the team size with the smallest standard deviation (3 fitters). Using the single figure presented by this statistic does not give an indication of the absolute size of the possible outcomes. It does not show that the maximum additional contribution from a team of that size would be limited to K\$1,100. Also, the statistic does not show the probability of the outcomes occurring.

Coefficient of variation

This is the standard deviation divided by the expected value and measures the trade off between risk and reward. This statistic would be used by a risk averse decision taker. Risk averse does not mean that the preference is to avoid risk: higher risk will be accepted if higher returns are earned. A risk averse decision taker will choose the option that gives the smallest coefficient of variation, which, in this case, is a team of five. Again, the statistic alone does not give a feel for the size or range of the outcomes or the probability of them occurring.

Statistical analysis

As included above, there are problems when using the statistics in isolation. The values calculated in the pay-off table need to be viewed to obtain an appreciation of the absolute value and range of the outcomes. This is important given that there could be differing objectives to be met by sales of the bespoke saddles. For example, the pay-off table shows that a team of three will not be able to fully service a medium demand level and higher, and that a team of 10 fitters is the only one that can service very high demand. This is important if the objective is to capture market share. Similarly, the statistics would not show which team sizes to avoid if a condition of acceptance of the decision is to avoid potential losses exceeding a specified value.

Note: a risk seeker would simply choose the option with the highest possible outcome and will not necessarily use statistical analysis.

Key performance indicators

Sales team member performance

Pipeline

This is a measure of the specific number of leads each saddle fitter has generated during a fixed period per month, with a higher number suggesting higher sales levels will be achieved based on estimated conversion rates from pipeline to closed sales.

Customer referrals

This is calculated as the number of referrals secured by individual saddle fitters during a fixed period. When customers are happy with products, they can boost sales by promoting us within the horse-riding community both online and in real life. This can boost sales by promoting our product to those not familiar with it.

Lead conversion rate

This is calculated as sales made as a percentage of customer enquiries. Tracking this number enables you to understand how effectively each team member is turning initial enquiries into revenue generating sales.

Saddle fitting team cost control

Average miles travelled per sale per period

This will be calculated by the number of saddles sold divided by number of miles driven. A lower percentage indicates that the team member has planned their journeys to minimise travel time and cost, thereby ensuring costs are controlled. Although this will be in part dependent on the size of the sales area to be covered by each fitter and the density of horses within areas; for example, where multiple horses are kept

together and appointments can be made to fit more than one saddle at a single location.

SECTION 4

Sales variances

The individual units method has been used to calculate the variances. This means that other than for the mix variances, the calculation of each variance for one type of saddle is totally independent of the budget and actual values used for the other saddle.

Sales volume profit variances

These variances show the difference between the actual sales volumes and the budgeted sales volumes for the two types of saddles and value the differences at the standard profit for each saddle. The profit used for the valuation is the standard selling price minus the standard production cost (including fixed overheads).

The variances show that the volumes of Comet and Bespoke saddles sold during March and April were both more than their budgeted volumes. This is good news and goes some way to refute the suggestion that the introduction of Bespoke saddles has taken sales away from Comet saddles. The favourable variance for Bespoke could have arisen because the budget was set too low. However, other factors needed to be considered, including prices and the availability of competing products in the market.

Sales mix profit variances

These variances are calculated as the combined total actual sales volumes of the two types of saddles split between the two types in the ratio of the budgeted sales mix compared with the actual individual sales volumes for each type of saddle, and then again valued at their standard profits.

These variances are part of the sales volume variances. The size of the variances for the two types of saddle is determined by the ratio in which it was thought that the saddles would be sold.

The mix variance for Comet is adverse and this means that fewer Comet saddles were sold than we would expect if the actual sales had been split in the ratio of the budgeted sales volumes. This points to a bigger proportionate increase in the volume of Bespoke saddles sold in the period, but it does not mean that the growth has come at the expense of Comet saddles.

A major determining factor for these variances is the accuracy of the budgeted mix. We were told it was 60 Comet: 20 Bespoke (a 3:1 ratio). If the budgeted volume of Bespoke saddles had been higher, the total actual sales when split into the standard mix would have been more weighted towards Bespoke saddles and the adverse mix variance for the Comet saddles would have been reduced. A sales budget of 60 Comet to 30 Bespoke would have given a ratio of 2:1. Therefore, a prudent/conservative forecast of sales volumes (and hence the standard mix) for Bespoke saddles will have a detrimental impact on the mix variance of Comet saddles. These mix variances therefore offer little insight into the impact of Bespoke saddles on the actual sales of

Comet saddles: the variance is very much dependent on the budgeted sales mix, and this reinforces the importance of sales forecasts and budgets, particularly for a new product.

Perhaps publicity and media interest in our Bespoke saddles led to interest in our other saddles too.

Sales price variances

Sales price variances are the difference between the actual revenues and the revenues that would have arisen if the actual volumes sold had been sold at standard prices (which include an allowance for sales discounts). The variances show extra discounts have been given for Comet saddles, but the discounts allowed on Bespoke saddles have not been given.

It could be that the discounts given on Comet saddles were needed to stimulate the increased sales as seen by the volume variance. Maybe competitors had reduced the price of their version of the Comet saddle and to compete we had to reduce our price too.

For the Bespoke saddles, it could be that we underestimated the value that customers would place on owning a Bespoke saddle and smaller, or perhaps no discounts were needed to attract sales.

Infographics and managing working capital cycle

The two diagrams summarise the cashflow cycle for Kanann, for a 10-month period before the new bespoke saddle was introduced and for 2 months after the new bespoke saddle was produced. When comparing the two periods, we can see the cash balance has fallen from K\$125,000 to K\$55,000. At first glance, this suggests that Kanann now has less cash available to meet expected day-to-day transactions or emergency costs. Less cash within the business can raise risks, which, if serious enough, may even threaten the ability of Kanann to continue to operate.

The reduction in cash balances is exacerbated by the fact that the number of days it takes us to pay our suppliers has more than doubled from 35 days to 75 days over the last 2 months. This is effectively an additional form of finance, as delaying payments to suppliers means the cash remains within our bank account. Whilst this helps our immediate cashflow position it may lead to a worsening cashflow position in the future. This is because delaying payments can lead to a loss of settlement discounts, which will increase costs and reduce profit. It can also lead to a loss of supplier goodwill, which may lead to increased prices, a refusal of further credit or longer lead times as they downgrade any priority that they give Kanann in delivering our goods.

At the same time, we have reduced the amount of cash held in the production process. Raw material days were reduced from 20 to 15 days; work in progress has reduced from 25 to 10 days and finished goods from 15 to 5 days. This has released cash into the business as we are holding less inventory, but despite this, the level of cash available has still been reduced.

In part, the reduction in cash can be attributed to the increase in receivable days from 55 to 75 days. This means cash from customers is being received more slowly and is reducing the balance available.

Whilst we can summarise that, following the introduction of the bespoke saddle, there appears to have been a reduction in available cash despite additional finance being created by delaying trade payables and reducing inventory, work in progress and finished goods. In part, this additional finance appears to have been used to finance the increase in receivables, which would tie in with the increased level of sales seen following the launch of the bespoke saddles. However, this could also have been used to finance other parts of the business, assuming the business only has one bank account.

Growth and operational issues

We are currently experiencing considerably more sales growth than expected. All sales growth requires the need for increased investment in working capital and potentially non-current assets to support it. However, it is not just about having the resources: it is how we can allocate the resources to support changing plans in this uncertain environment caused by perhaps continued high growth but potential rapid changes (both up and down) in demand for bespoke saddles.

The accepted basis of production planning is the sales budget and then inventory policy. The major problem is that it is impossible to carry inventory of a bespoke item. This means that we cannot hold bespoke inventory to act as a buffer to short-term changes in demand. The trigger to produce a bespoke saddle is the receipt of an order. This causes operational issues because production plans must be changed to meet that order given that there is no inventory of bespoke saddles.

To overcome this, we will need flexibility in our production plans. We will need to have resources (materials, labour and machines) available to make the saddles. But what if demand for bespoke saddles changes from our forecast? That would mean that we would have spare resources if demand fell or scarce resources if demand increased. Resources could be switched to or from our other saddles. Therefore, we need accurate plans/budgets for those saddles but even those would not protect us from problems caused by shifting demand for bespoke saddles. Therefore, we need flexibility in our operational production schedules.

In the short term, this requirement for flexibility can come from any under-utilised production capacity. However, this assumes that all machines and staff can move seamlessly from standard to bespoke saddle production. This may not be the case and therefore there may be a requirement for additional training of staff and changes in non-current assets to enable this. This increased flexibility will have both cost and time implications for the business, which may be difficult to complete at a time of high demand. Being able to add to or draw from inventory of non-bespoke (standard) saddles to cope with the allocation of resources offers some flexibility. There may need to be a change in our inventory policy to allow for a higher, or lower, inventory of standard saddles to be held.

Where all assets are fully utilised and buffer stock of standard saddles has been used up, then further demand will require different operational decisions to be made. In such cases, financial contribution from production will be an issue in deciding which items are produced with limited resources. However, such decisions should not be made solely on a financial basis. This is because issues such as reputation may have a high impact on the company as a whole and may lead to a larger loss of sales revenue and contribution than may be initially apparent.

The need for accurate sales forecast is amplified in the case of bespoke saddles because it is impossible to hold inventory of a bespoke item. Therefore, to ensure the use of our production resources is optimised, we need to have the ability to switch production at short notice: flexibility is key.



AICPA® & CIMA®

Together as the Association of International
Certified Professional Accountants

OPERATIONAL CASE STUDY

MAY & AUGUST 2024

EXAM ANSWERS

Variant 4

These answers have been provided by CIMA® for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1

What-if analysis on the K-Jump budget

Table 1 indicates that a 10% decrease in selling prices is expected to result in an 8% increase in sales revenue and a 20% increase in variable costs. Given that the variable cost per unit is unchanged, this means that we are assuming that a 10% decrease in selling price will result in a 20% increase in sales volumes. This increase in volumes sold will increase both revenue and variable costs by 20%, but the reduction in selling price will also reduce revenue. Overall, the decrease in selling price has the effect of reducing the contribution margin per saddle, which is why contribution is expected to increase by only 1% despite a 20% increase in volumes sold. The table also indicates that we expect a step in fixed costs if we increase volumes by 20% (presumably additional production fixed overhead). Overall, there will be a 5% reduction in profit.

Table 1 also indicates that an increase in promotional spend of K\$40,000 will increase volumes sold by 15% because this is how much both revenue and variable costs are expected to increase by. With this option, there is no impact on the contribution margin per saddle and hence contribution is also increased by 15%, the increase in volume. However, fixed costs are expected to increase by K\$40,000 (27%), which relates to the additional promotional spend, and therefore indicates that there is no expectation of a step in fixed production costs at a 15% increase in volume. Overall, this option is expected to increase profit by 2%.

Factors to consider before using this what-if analysis

This what-if analysis indicates that:

- It would not make sense to reduce selling price by 10% (option 1) because this is expected to reduce total profit. The impact of higher volumes is outweighed by a decrease in the contribution margin and an expected step in fixed costs.
- It would make sense to increase promotional spend by K\$40,000 (option 2) because this is expected to increase total profit. The impact of higher fixed costs is being more than offset by the increase in contribution.

However, there are a number of factors that need to be considered before a decision is made about which option should be implemented.

Firstly, the what-if analysis is fairly simple. Modelling the interconnection between selling price and sales volumes makes sense, but there is likely to be significant uncertainty surrounding how price changes will affect volumes sold, given that this is a brand new market for Kanann. We need to consider how likely it is (in other words the probability), that a 10% reduction in selling price will lead to a 20% increase in volume or that increasing promotional spend by K\$40,000 will increase volumes sold by 15%. Assessing this is difficult because we are venturing into the specialist saddle market where there is significant brand loyalty. We might want to extend the analysis and model each change of selling price against different changes in volume.

Secondly, we need to consider our predictions about the impact of each option on fixed costs. We are predicting that there will be a step in fixed costs of K\$10,000 if volumes increase by 20%, but not if volumes increase by 15%. Can we be certain that current production capacity could meet the 15% increase? If the step in fixed costs did arise at an increase in volume of 15%, this would result in an overall reduction in profit for option 2, and not an increase in profit. There could be unforeseen additional fixed costs that arise as a result of the need to expand capacity, even at small increases in volume. In addition, expansion to cope with additional volumes could potentially lead to control issues if management resources are not increased in line with the increase in capacity. It might, certainly initially, be better to set a selling price and promotional budget that will generate sales volumes that can be achieved within current capacity.

Lastly, we also need to consider whether the variable cost per saddle will remain the same. We may be able to take advantage of bulk purchase discounts at higher production volumes, which would reduce the variable cost per saddle. Alternatively, increasing volumes could result in extra overtime or increases in other variable costs, which would increase the variable cost per saddle.

Key performance indicators (KPIs) for new tree supplier

Percentage of trees rejected and returned to the supplier during the production process

This could be measured as the number of trees rejected during the production process that are returned to the supplier divided by the number of trees used in production for the same period. These trees will form of the base of our K-Jump saddles and any trees that are rejected during production represent a potential cost to the business. There will be many reasons why a tree is rejected; for example, breakage during saddle construction or damage in storage, so it will be important to identify for each tree rejected whether this is due to the quality of the tree itself (so under the control of the supplier) or other issues such as poor workmanship or poor storage in the raw material warehouse (which would be an internal quality failure). Trees rejected due to supplier quality failure will be returned to the supplier and therefore this KPI is a measure of the quality of the trees produced by the supplier.

Percentage of saddles returned due to tree failure

This could be measured as the number of saddles returned from customers due to tree failure divided by the number of saddles sold. This should be viewed as a rolling measure, maybe over a 3-month or 6-month period, given that failure of the tree may occur some time after the saddle was purchased by the customer. The tree gives the saddle its shape and structure and therefore if it fails the saddle is not functional. Any saddle returned with this fault represents an external quality cost for the company in terms of lost reputation. Therefore, it is important that this is minimised.

Percentage of deliveries received within agreed lead time

This could be measured as the number of deliveries received inside of the agreed lead time divided by the total number of deliveries received in a period. This is a measure of how efficient the supplier is in delivering the trees on time. We will be making K-Jump saddles to order and so if there are delays in receiving trees this could result in production being delayed. This may then result in us not being able to deliver to our customers on time.

Percentage of tree packaging which is sustainable and recyclable

This could be measured as kilograms of packaging which is sustainable and recyclable divided by total kilograms of packaging. Sustainability in packaging is a key concern for us and we should expect this value to be present in the suppliers we use. This is important because it allows us to market our products as being made sustainably. We would therefore expect the supplier to use sustainably produced and/or recyclable packaging for the trees and, if they cannot yet achieve it for 100% of the packaging, to be constantly working to improve the percentage.

SECTION 2

Initial and subsequent measurement of expenditure

New building

The expenditure on the building will generate future economic benefit to the company as the building will be used as a warehouse. We expect to gain benefit from this expenditure for more than 12 months and it can be reliably measured because we have already incurred the expenditure. Therefore, expenditure on building works can be capitalised and recognised as part of property, plant and equipment (PPE) within non-current assets in our statement of financial position.

In terms of the amount to be recognised, IAS 16: Property, plant and equipment states that expenditure on an asset can be capitalised if it is part of its purchase price (which includes non-refundable purchase taxes) or is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating as management intends. Therefore, all of the building expenditure of K\$200,000 can be capitalised because this all (including the architect and inspection fees) relates to getting the building ready to be used as a warehouse.

In accordance with IAS 16, all items of PPE (except for land) are depreciated from the date from which that item is available for use as intended by management. In addition, the standard states each part of an item of property, plant and equipment should be depreciated separately, although parts of an asset can be grouped together if they have the same useful life and the same depreciation method is to be used. Depreciation is the systematic allocation of an asset's depreciable amount (cost less any residual value) over its useful life. The depreciation method chosen should reflect the pattern of consumption of the benefits expected from the asset.

The building expenditure of K\$200,000 relates to the building and the roof, each of which has a different useful life. Therefore, we will need to split the K\$200,000 into the element that relates to the building and depreciate this over 50 years and the element that relates to the roof, which will be depreciated over 25 years. Depreciation will start from 1 July because this is the date that that final inspection certificate will be received and therefore the date on which the building is available for use as intended by management. Therefore, 6 month's worth of depreciation will be expensed to profit or loss for the year ending 31 December 2024.

Redecoration of main production facility

The expenditure on the external contractors involved in the redecoration of the main production facility of K\$12,000 will need to be expensed to profit or loss this year. This is because redecoration is a day-to-day servicing cost associated with the building and does not improve the economic benefits associated with the asset.

New industrial sewing machine

The new industrial sewing machine will be initially recognised as part of PPE because we will derive future economic benefit from the use of the machine and we expect to use it for more than 12 months. As noted above, the amount that can be capitalised is the purchase price (which includes non-refundable purchase taxes, including import duty) or is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating as management intends. Therefore, the purchase price of the machine itself, the import duty of K\$1,200 and the installation fees of K\$1,500 can be capitalised, as the machine needs to be installed before it can be used. The training costs, however, cannot be capitalised because the training costs relate to the employees rather than the asset. Given employees are free to leave the company, we therefore do not control the knowledge that arises from the training. In addition, insurance costs cannot be capitalised because insurance is an annual expense.

The sewing machine asset will need to be depreciated over the period that we expect to derive economic benefit from it, which is 5 years, rather than its full useful life of 15 years. In addition, we should start depreciating the asset from the date that it is available for use as intended by management, which is 1 May, even though it did not start being used until 1 June. Assuming we use straight-line depreciation, the charge for the year ending 31 December 2024 in respect of this asset will be calculated as $K\$(86,000 - 1,000 - 800) - K\$40,000$ (residual value) divided by 5 multiplied by $8/12$.

The training costs of K\$800 will be expensed to profit for the year. With respect to the insurance cost of K\$1,000, given that the period of cover runs from 1 April 2024 for 12 months, this means that $K\$1,000 \times 9/12$ will be charged to profit for the year ending 31 December 2024. A prepayment of the difference between this and the amount paid will be recognised as part of current assets in the statement of financial position at 31 December 2024.

Management of working capital to avoid a cash deficit

To improve cash flow over the short term, in a bid to avoid a cash deficit, we could consider the following actions:

- We should review how we currently manage inventory. Inventory days have increased from 55 days at the end of last year to 65 days currently, although this could be because we have already started buying in inventory for K-Jump (for example, the new carbon fibre trees). However, we should consider whether we could take a more aggressive approach to how we manage inventory levels with the aim of keeping inventory levels as low as possible, because this will have a positive effect on cash flow. We will be producing K-Jump to order, but other saddles are made for inventory, so we should consider whether production of all saddles could be to order. Clearly, an implication of

this would be that our wholesalers and retailer may need to wait longer for saddles and as such we could lose out on sales as a result. There may be scope to limit our raw material inventory. We currently purchase some of our consumables and our flocking in bulk to take advantage of discounts, however, we should consider whether ordering more on a just-in-time basis might be suitable. This would positively impact cash flow but would mean that we lose out on discounts.

- We could seek to improve how quickly we receive cash from our customers. Current receivable days have slightly improved from the end of last year at 51 days compared to 54 days. Despite the fact that this is within our standard credit terms of between 30 and 60 days, it is possible that this could be improved further by ensuring that we are following robust credit control procedures to chase up amounts that are overdue quickly (although our customers do typically pay on time). However, we might want to consider offering our customers a prompt payment discount to encourage them to pay early (for example, a 1% discount for paying in 10 days rather than 30 days or for paying in 20 days rather than 60 days). This would give our short-term cash flow a boost, but at the expense of the discount given away. We could also consider using a factoring company to provide finance based on our invoices and take control of our credit control process to speed up our cash cycle. The implications of this though will be the cost involved as well as the fact that factoring is often seen as a sign of financial weakness by customers.
- We could try to negotiate longer payment periods with some of our suppliers. However, payables days have already increased (55 days now compared to 50 days at the end of last year). Given that credit terms with our suppliers range between 30 days and 75 days, it would appear that there might be some scope to take full advantage of the credit terms offered. It will be important however that any lengthening in the time taken to pay suppliers is either within the pre-agreed terms or a negotiated extension of those terms. Otherwise, we could harm our supplier relationships, which could lead to restricted supplies, increased prices, or even stopping supplies.

SECTION 3

Linear programming graph

Feasible region and optimal production plan

The feasible region is the area of the graph which includes all of the possible combinations of numbers of K-Jump 1 and K-Jump 2 saddles which can be produced, given the leather and sewing machine hour constraints and the size of the sales orders for these two saddle models.

Lines A and B on the graph represent the different combinations of production of K-Jump 1 and K-Jump 2 saddles which would utilise all of the available leather and sewing machine hour resources respectively. These lines represent the maximum that can be produced and form a boundary for the feasible region which will be to the left of these lines. It is impossible to produce above these lines.

Lines C and D on the graph are the demand constraints and represent the total number of saddles required to satisfy sales orders next month. Line C indicates that we have orders for 14 K-Jump 1 saddles and Line D indicates that we have orders for 8 K-Jump 2 saddles. The feasible region will be to the left of line C and underneath line D. The feasible region is the area of the graph which starts at the origin and is contained by lines D, B, A and C.

The optimal production plan, based only on financial considerations, can be found by moving the iso-contribution line (the dotted line which represents the relative contributions of each type of saddle) until it reaches the furthest point from the origin that is still within the feasible region: this is where lines A and B intersect. Therefore, the optimal production plan is to produce around 12.5 K-Jump 1 saddles and 6 K-Jump 2 saddles. Given that we can't really make a fraction of a saddle, this would realistically be 12 K-Jump 1 and 6 K-Jump 2, leaving a small amount of resource unused.

Financial and non-financial factors to consider

At the optimal production plan, both leather and sewing machine hours are binding constraints (meaning that we will use all of these resources). We need to consider therefore if it is possible to obtain more of each resource and relax the constraints. To assess whether this would be worthwhile, we need to determine the shadow price of a single unit of the resource (this is the additional contribution gained from each additional unit) against the cost of buying an additional unit.

For example, it might be possible to purchase the right grade of leather from an alternative supplier, maybe one of the suppliers that we already use for general-purpose saddle leather. It's possible that this would cost more per butt than we usually pay, given the emergency nature of the order, but as long as this is less than the contribution to be earned by having that leather butt, it will be worthwhile.

Similarly, we could look to increase the availability of sewing machine hours. Maybe we could hire an additional machine or re-set one of the machines that we use for general-purpose saddles so that it can be used for K-Jump production. If we did this, we would need to consider any knock-on implications for production of general-purpose saddles.

The optimal solution is based on maximising profits based on the constraints and takes a short-term view of the decision. K-Jump is a range of specialist saddles for show jumping and hence the ultimate customers for these saddles are likely to be new to Kanann. It is therefore important that we seek to satisfy as many of these orders as possible, as these new customers might end up purchasing a general-purpose saddle from us in the future, or indeed additional K-Jump if, for example, they have more than one horse that they use in competition. We therefore need to weigh up the potential impact on our brand if we do not satisfy these K-Jump orders, and the value of this should be reflected in any consideration about buying in additional resource.

We also need to consider who the customers actually are for these K-Jump saddles. Ella Beard, Sales Manager, and her team will have secured these orders and will have an understanding already of which customers might not be affected by a short delay, in which case production could be deferred to the following month. In the longer term though, if leather and sewing machine hours continue to be constrained, we need to ensure that we increase production capacity with maybe a further supplier and a new sewing machine.

Activity-based costing (ABC)

How an ABC approach will change fixed production overheads absorption

We currently absorb fixed production overheads on the basis of direct labour hours, using a facility-wide absorption rate. This absorption rate is calculated as the total of the budgeted fixed production overhead for the entire production facility for a year divided by the total of budgeted direct labour hours for the year.

ABC would result in the following changes:

- We would identify production activities and have numerous absorption rates based on those activities, rather than a single absorption rate. For example, the Cutting Department activities include cutting machine set up, deliveries from warehouse and running of the cutting and edging machines.
- Activities that have the same cost driver (which is the activity or action that drives or generates the cost) are grouped together and all the costs associated with those activities are collated into a cost pool. For example, the cutting machine set-up cost pool would include indirect labour costs associated with the activity and the cost of any consumables such as oil used for the set up. The cost pool for running the edging machine will include depreciation related

to the machine and the energy consumed. The cost of deliveries from the warehouse would include the cost of operating forklift trucks, for example, and any indirect labour associated with the activity. Therefore, using ABC, there will be much greater detail in terms of how costs are grouped together in these cost pools.

- A cost driver rate would be established for each cost pool which is the total of the cost pool divided by the total number of the relevant cost driver in the period. For example, the cost driver for cutting machine set ups could be the number of set ups because each individual set up incurs cost. Using the same logic, the cost driver for deliveries from the warehouse could be the number of deliveries. There are some activities though where labour hours or machine hours are appropriate. For example, the cost of running the machinery is going to be driven by the time taken and hence machine hours is the appropriate cost driver here.

Impact on overhead cost per saddle

Using our current absorption approach, production overheads would be absorbed on the basis of direct labour hours. The absorption rate for the Cutting Department would be calculated as production overhead divided by total number of direct labour hours for the year. Each general-purpose saddle would absorb 4 hours at this rate and each K-Jump saddle 6 hours, meaning that a K-Jump saddle would absorb 1.5 times more production overhead than a general-purpose saddle.

However, because the two types of saddle use production activities such as machinery set up and deliveries from the raw material warehouse to differing degrees, the use of ABC will change the amount of production overhead which is assigned to each type of saddle. Indeed, it is likely that the standard cost of a K-Jump saddle will have a higher amount of the production overhead associated with cutting using an ABC approach than it would do using our absorption costing approach. This is because:

- K-Jump is cut in smaller batches (2 saddles at a time rather than 10 saddles at a time). Each batch requires the cutting machine to be set up and one delivery from the warehouse. Therefore, given the batch sizes, K-Jump should absorb 5 times as much of the set-up cost and delivery cost compared to general-purpose saddles. This is a greater proportion of this cost than 1.5 times, which would be the situation with absorption costing.
- K-Jump has more pieces that need to be finished, which is presumably why it takes 4 machine hours compared to 2 machine hours for general purpose. Therefore, K-Jump should absorb twice as much of the costs of running the edging machine than general-purpose saddles.

SECTION 4

Direct labour variances

Rate variances

The direct labour rate variance for the Cutting Department is adverse, which means that we paid more per hour on average for these employees than our standard rate of K\$30.00 per hour. At the start of December, new direct employees started work in the Cutting Department who had previously worked at a leather handbag factory and, given their experience, and in order to ensure they came to work for us, it is possible that Jack had to offer them a higher hourly rate than our standard rate. In addition, more overtime than budgeted was worked in the department, and this additional overtime premium would have increased the actual average hourly rate above the standard rate.

The direct labour rate variance for the Assembly Department is favourable, which means that we paid less per hour on average for these employees than our standard rate of K\$25.00 per hour. There are two conflicting reasons for this. Firstly, taking on trainees at the start of the month will have reduced the average rate, as trainees are paid less per hour than trained employees. To counter this though, the additional overtime premium paid will have increased the average rate. The effect of the cheaper trainees outweighs the additional overtime premium, hence a favourable variance overall.

Idle time variances

We do not budget for idle time, and therefore any labour time that has been paid for, but which was unproductive, will result in an adverse idle time variance. The two adverse variances therefore mean that, in both departments, direct employees were paid for hours where they were unable to be productive.

For the Cutting Department, idle time arose because all employees had to be trained on how to use the new edging machine. In addition, it is likely that there was some additional training time for the new employees. Even though these employees were experienced, they would still need to spend time learning and understanding Kanann's systems.

For the Assembly Department, the new trainees were trained on the job, which means they probably had to stand and watch as a fellow employee showed them how to assemble saddles and to use the sewing machines. In addition, one of the sewing machines was out of action for 3 days awaiting repair. This may have created a slight bottle neck in production, meaning that some employees were not able to be productive.

Efficiency variances

The direct labour efficiency variance for the Cutting Department is favourable, which means that it took less direct labour hours than standard to cut out the number of pieces of leather that we did in the month. In other words, employees were more efficient than we expected, based on our standards which were set 12 months ago. The new edging machinery is likely to be the reason for this. Because the machinery operates at a faster rate, it's likely that less direct labour hours are required when edging leather pieces. In this case, our standard is likely to now be out of date. In addition, the new employees taken on are all experienced leather cutters and therefore may work at a faster rate than the standard that we've set.

The direct labour efficiency variance for the Assembly Department is adverse, which means that it took our direct employees more direct labour hours than standard and therefore the workforce took longer to assemble each saddle than expected. One reason for this is the new trainees who are likely to take longer than an experienced employee. Also, the trainees will have slowed down experienced employees as a result of the on-the-job training. It's also possible that the issues with the sewing machine also slowed down the rate at which stitching could be completed.

Responsibility accounting

Responsibility accounting involves holding managers responsible and therefore accountable for achieving targets. The business will be split into responsibility centres, each with its own manager who would be responsible for the performance of that centre. For Kanaan, given the company's relatively small size, we might want to do this by function, so, for example, sales and marketing, main production, distribution and raw material warehousing and procurement. As the business grows, this could be split down further, for example, into 4 different responsibility centres for production based on our production departments.

Each responsibility centre will have its own budget and standards and the responsible manager will be expected to achieve these. For example, the standard cost of a tree for an Astral: Type 1 saddle is K\$100.00, and whichever manager is responsible for procurement will be held accountable for any deviation from this. This might be Jack Newman, Production Manager, or might be one of the warehouse team, depending on where responsibility for procurement lies. Any deviation from this standard will be reported as a raw material price variance and the manager responsible will be expected to take action if it is adverse. For example, with respect to the direct labour variances, there was an adverse labour efficiency variance for the Assembly Department, principally as a result of taking on inexperienced employees. Under a responsibility accounting system, we would expect Jack Newman to act on the fact that trainees are taking longer than they should, possibly with better training.

However, it is important that managers are only held accountable for factors that they are able to control. If they are made 100% accountable for all of the variances between actual performance and expected performance, this could damage motivation where some of these variances relate to factors that they have no influence or control over.

It is therefore important in a responsibility accounting system that variances are split into those caused by factors controllable by the manager (identified as operational variances) and those that they cannot control (identified as planning variances). For example, Jack Newman cannot be held accountable for John's decision to suspend routine servicing of equipment, which contributed to idle time in the Assembly Department. However, Jack can be held accountable for the adverse impact of taking on trainees, as this was his decision.

Make or buy decision

We need to decide whether in the short term to make bridles and reins in-house or to buy them in. To make this decision, from a financial perspective, we need to consider the relevant costs (that is the incremental costs) of both buying in and making each type of bridle and rein. The relevant cost of buying in is the buy-in purchase price from the supplier identified in the first row of Table 2. The relevant cost of making each model will be the variable costs of production (for example, K\$65.60 for Bridle: Deluxe). This assumes though that total fixed costs will remain unchanged whether we buy in or manufacture internally during this short-term period. This is a sensible assumption given that we will be making these items in the short term out of available production capacity.

Comparing the variable production cost with buy-in purchase price, we can establish that we should buy in Bridle: Regular because its buy-in price at K\$55.00 is less than the variable costs of production of K\$56.40. The buy-in purchase price is higher than the variable production cost for all the other products and therefore we still need to decide whether we should buy in or make them ourselves given that there is a limited amount of cutting machine hours available.

To make this decision, we need to do the following:

1. Calculate the additional (in other words, incremental) cost of buying in compared to making ourselves a unit of each product (this is the difference between the buy-in price and the variable production cost per unit). For example, Reins: Regular will be K\$38.00 less K\$26.30.
2. Calculate the additional cost of buying in per unit of the limited resource, which is cutting machine hours. For example, Reins: Regular will be (K\$38.00 – K\$26.30) divided by 1.5 hours.
3. Rank the remaining three products, from the highest additional cost per cutting machine hour to the lowest.
4. Allocate the cutting machine hours available to make enough of the first ranked product, then the second ranked and so on. In that way, we are making sure that we produce products in-house which will generate the greatest saving per machine hour compared to buying in. Any scheduled production that cannot be met after all the cutting machine hours have been allocated should then be bought in.



AICPA® & CIMA®

Together as the Association of International
Certified Professional Accountants

OPERATIONAL CASE STUDY

MAY & AUGUST 2024

EXAM ANSWERS

Variant 5

These answers have been provided by CIMA® for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1

Time series

What Graph 1 shows

Graph 1 is the representation of a time series, as it shows sales volumes of general-purpose saddles in Geeland from the first quarter of 2020. There is just over 4 years' worth of data plotted on the graph.

The graph gives us an indication of two key pieces of information about the past sales market for general-purpose saddles in Geeland. Firstly, the graph shows that, overall, across the 4-year period, despite some peaks and troughs, sales have been increasing. This indicates that there has been an upward trend in sales, which is to be expected given that we know the popularity of equestrian pursuits has been growing in the period. The rate of growth does potentially appear to have significantly slowed in more recent quarters, with the greatest increase in sales seen during 2022.

Secondly, the graph shows us that there appears to have been some seasonality in sales. In each calendar year, quarter 2 (April to June) has the highest sales and quarter 4 (October to December) the lowest, other than for 2023. The high sales in quarter 2 ties in with the fact that the Geeland Horse Show is in April each year and that there are various horse-related exhibitions and trade shows around that time.

Determining a trend line and seasonal variations

The first step in determining the trend line will be to establish the 4-point moving average figures based on the raw sales data. The first average would be for quarter 1 to quarter 4 of 2020 (so 4 data points), the second average would be for quarter 2

2020 to quarter 1 2021 and so on. Since this gives us an average between the figures used for the second and third quarter in each average, we then need to centre this. This is achieved by averaging the first and second moving averages, which will then give us our first 4-point centred average data point for the quarter 3 2020. The last centred average will be for quarter 4 2023.

After all of the 4-point centred moving average data points are calculated, we need to establish a linear trend line. This trend line will be represented by $y = a + bx$ where y is the sales volume in a quarter, a is the sales in the first quarter, b is the constant amount that sales increase or decrease by each quarter and x is the quarter number. Given that the first centred average data point will be at quarter 3 in 2020, in the equation, x will equal 1 for this quarter. To establish b , which represents the gradient of the line, we divide the difference between the first and the last values by the number of periods of growth (this will be one less than the number of centred averages).

Alternatively, to establish the trend line, we can plot the 4-point average data points on a graph and then draw a single line of best fit based on a visual fit. From this, we can then determine an equation for the trend line. A more accurate method, however, would be to use least squares regression analysis where mathematical formulae are used to establish the equation of the line of best fit.

Using the additive model, seasonal variations will be determined by comparing the actual sales volume data in a given quarter with the trend value for that quarter based on the trend line equation. For example, the graph indicates that sales volumes in quarter 2 2022 were around 12,000 saddles. Say, the trend line equation resulted in trend sales of 10,000 saddles, this would give us a seasonal variation of +2,000 for quarter 2. Having established all the differences across the trend, we would then average the seasonal variations across equivalent quarters of the year.

Difficulties of using this information to create a forecast

We need to create a forecast for quarter 4 2024, which means that we need to extrapolate outwards from the trend line. One issue is that the data on which the trend line is based is three quarters away from the quarter that needs to be forecast, because the final 4-point average data point will be for quarter 4 2023. This means the trend line does not represent the latest sales volume information, which therefore reduces the accuracy of any forecast derived from it.

In addition, the trend line will be based on all of the sales data points in Graph 1. Across this period though, we can see the trend has changed as the rate of growth appears to have slowed in 2023 compared to the two previous years. However, this effect will have been averaged out and therefore the trend line created will not be representative of the trend from 2024 into 2025 and beyond. Indeed, the trend line is likely to overstate trend volumes in a quarter 4 2024 forecast.

Whilst the trend line is useful in terms of seeing the underlying increase in sales over the period, it does not necessarily hold that what has happened in the past will happen

in the future. The slowing down in the rate of growth could indicate that the market in Geeland has matured, but further analysis and information will be required to understand whether this is the case or not.

In the same way that the trend has been distorted across the period, the same could be true of the seasonal variations. There does seem to be a marked difference in the quarter 2 peak in 2023 compared to the previous years. There may have been a specific reason for the very marked peak in 2022, such as, for example, a one-off horse event or maybe a significant promotional campaign by a major saddle brand. Whatever the reason, Graph 1 indicates that the pattern of seasonality may not be as marked going forward as our seasonal variations might suggest, which would then limit the accuracy of any forecast. For that reason, it might be better to use the multiplicative rather than additive model to work out the seasonal variations.

It will also be difficult to determine our share of the market in Geeland. Kanann saddles have a reputation as good quality and traditional. The sales volume data is for all general-purpose saddles and we don't know whether there is a preference in the country for traditional or more modern designs. This will influence the share of the market that we might expect. In addition, we are completely new to Geeland and therefore it will take time to build brand recognition. Although, with Freya now being involved in the business, building brand presence may not be as difficult.

Assessment of potential retailers

Approaches to working capital management

Based on the working capital information, the two potential retailers use different approaches to manage working capital. Hackers Hub seems to take an aggressive approach whereby investment in current assets is kept relatively low and payables are used as a source of short-term finance. Indeed, Hackers Hub has a negative operating cycle, which means that the length of time taken to pay suppliers is greater than the time cash is tied up in inventory and receivables. This may be a function of necessity rather than design though, as the company appears to be growing quickly. Although, given the positive cash balance, it doesn't appear to be overtrading but may have been in the past.

Geeland Horse Supplies seems to take a more conservative approach to working capital management. Inventory days and receivable days are significantly higher than for Hackers Hub and payable days significantly lower. Given that prompt payment discounts are common in Geeland, it's possible Geeland Horse Supplies takes advantage of this for its payables, whilst Hackers Hub isn't in a position to do so because of its low cash balance and limited liquidity.

Trading terms

When agreeing trading terms with these retailers, we will need to consider the credit limit (the maximum amount that can be outstanding at any given time) and the period of credit. With respect to the latter, given standard credit terms in Geeland are 30 days. This is likely what the retailers will expect and so we will need to offer this, certainly for Geeland Horse Supplies. It's possible that Hacker's Hub may seek to negotiate longer terms given that its payables days are significantly higher than standard credit terms.

In terms of the amount of credit, we will need to continually review this, but the fact that Hackers Hub takes on average 65 days to pay its suppliers might mean that we seek to limit our exposure by offering a low credit limit, certainly until the company proves that it can pay within the agreed terms.

We will also need to consider whether we offer prompt payment discounts to the two retailers. It would appear that Geeland Horse Supplies might take advantage of this, although we would need to weigh up the impact of the lost revenue against the benefit of having the cash earlier than would otherwise be the case.

SECTION 2

Costing of videos

Direct costs of a specific video

The direct costs of a specific video will be any cost incurred which relates solely to one of the six videos, either up-front when the video is created or when the video is viewed in the future.

The up-front direct costs for creating a specific video include the fee paid to Kia Patel for appearing in that video, because she will be paid a separate fee for each one. We know that the videos will be of different lengths and therefore it's likely that the fee paid to Kia will vary depending on the length of the video. Also included will be any location costs which relate to a specific video, such as the costs of hiring a location or equipment for just that video.

The direct costs related to viewing the videos in the future will include the fee payable to the video hosting website each time a specific video is viewed. This cost will depend on the number of times a video is viewed and so is a future cost. It can be directly linked to a specific video and so is a direct cost.

Indirect costs of a specific video

The indirect costs will be any costs which relate to the creating and viewing of the series of videos, but which cannot be assigned to a specific video. Most of these indirect costs will be incurred up-front when the series of videos is created or to support the viewing of the videos, although there maybe be some on-going costs as well that we haven't anticipated yet.

The up-front indirect costs for creating the series of videos includes the fee paid to the video production company for filming and presumably editing the videos. They will be charging a single fee to cover the whole project and therefore this is an indirect cost. It also includes location costs that relate to more than one video in the series. Examples of such costs will include hotel and subsistence costs for Freya and Kia and any of our employees that end up being involved, as well as location and equipment hire costs that relate to the series as a whole.

The up-front indirect costs for viewing the videos include the one-off fee payable to the video hosting website company and also the costs of upgrading our website to allow the videos to be streamed. These costs relate to the whole series of videos and so are indirect. Other indirect costs might be additional administration costs associated with organising and managing the video project.

Future indirect costs may include any costs associated with maintaining and supporting the viewing of the videos on our website and any additional charges that the video viewing company introduces.

Potential problems of determining a total cost for each specific video

One potential problem will be determining how to apportion the up-front indirect costs of creating and viewing the videos between the six videos in the series. As noted above, these costs include the fee to the video production company and location fees. Given that each video is for a different length of time, we could use the length of the video as a basis to apportion the cost. However, this assumes that the length of time is representative of how much each video impacts the cost. It could be that certain videos take proportionally longer to make than others, perhaps because of location issues, and therefore should get a great share of the costs. In terms of the fee paid to the video hosting website, we could just divide by six, although it could be that some videos are more popular than others, in which case the number of views might be better.

The total cost of a specific video will include costs to be incurred in the future, such as the fee per view and any future costs related to hosting the videos. The total fees per view will depend on the number of times a specific video is viewed and this will be problematic to determine at this stage. We have no idea how popular the videos will be, and, even if we did know that, we won't know the proportion of people that will view from the video hosting website compared to those viewing from our website or the Pony Club website.

Finally, any indirect cost associated with our website is likely to benefit Kanann as a whole, not just the videos. A potential problem therefore is deciding how much of the cost associated with the upgrade relates to the videos and how much relates to the company as a whole. This will be difficult as it will depend on whether we have further video projects in the future and also a general upgrade benefits the website generally, but by how much is hard to measure.

Promotional campaign decision under different risk attitudes

If the SMT is risk seeking, it will be interested in the best outcome no matter how small the likelihood that it will occur. As such, the SMT would choose the option that gives the best possible outcome. From the payoff table, we can see that Campaign 1 has the highest of all of the nine possible outcomes of K\$620,000 and so, as a risk seeking decision maker, the SMT would choose Campaign 1.

If the SMT is risk neutral, it will again ignore risk but will choose the campaign that gives the highest expected value. Expected value is the weighted average outcome based on the probabilities and represents the expected outcome assuming that the decision is made time and time again. As a risk neutral decision maker, the SMT would select Campaign 2, as it has the highest expected value of K\$335,200.

If the SMT is risk averse, it will choose the campaign which, given the same level of return, has the lowest level of risk. As such, the SMT would choose the campaign with the lowest coefficient of variation because this measures risk per K\$1 of expected

value. Therefore, Campaign 3 would be chosen as this has the lowest coefficient of variation at 0.57, despite the fact that this has the lowest maximum outcome of K\$480,000.

Limitations

The possible outcomes and associated probabilities have been estimated by Ben Harris, the new Geeland Sales Manager. Ben is experienced in the equestrian market but is new to the market in Geeland and therefore there is a good chance that these estimates are inaccurate. We could consider using some form of what-if or simulation analysis to model different potential outcomes under different assumptions. The approach taken here is relatively simplistic.

A risk neutral approach results in Campaign 2 being selected and a risk seeking approach results in Campaign 1 being selected. In both cases, these campaigns could result in an overall loss for the year if the state of the economy is weak, and there is a 20% chance of this happening. This is ignored in both decision attitudes.

A risk neutral approach is based on expected value. However, this is a long-run average outcome if the same event was to be repeated over and over. The choice of campaign is a one-off decision and hence the expected value is not representative.

Finally, a risk averse approach is based on the co-efficient of variation. However, this assumes a linear relationship between risk and return and that decision makers will be willing to risk more when the return is higher. This is seldom the case as a decision maker's attitude towards losing changes as the value risked changes.

SECTION 3

Break-even chart

The horizontal line on Chart 1 represents fixed costs for the period and it is a straight line because it is assumed that these costs do not change as activity levels change. These fixed costs are budgeted to be K\$150,000 for the quarter and this includes a share of fixed production costs and selling, distribution and administration costs specific to the Geeland operation.

Point E on the chart represents the total budget for the quarter, which is total sales revenue of K\$380,000 and total contribution of approximately K\$175,000. Taking the fixed costs of K\$150,000 into account, this indicates a budgeted profit of approximately K\$25,000.

The straight line that starts at the origin and ends at point E represents the weighted average contribution line at different sales volumes based on the budgeted sales mix. Where this line crosses the fixed cost line represents the break-even point (the point where we make no profit or loss). From the chart, based on the average contribution to sales ratio of 0.46, we can see that in order to break even we would need to achieve sales revenue of approximately K\$340,000.

The other staggered line which connects the origin with points A, B, C, D and E represents the relationship between contribution and sales on the assumption that we sell saddles in order of their contribution to sales ratios. For example, the line from Point A to Point B represents the contribution from the sale of Meteor: Type 3 because this is the second-ranked saddle based on contribution to sales margin.

Where this line crosses the fixed cost line represents the break-even point (the point where we make no profit or loss). From the chart, assuming that we sell our saddles in the order of contribution to sales margins, we can see that in order to break even we would need to achieve sales revenue of approximately K\$325,000. This is lower than the break-even revenue for the weighted average contribution line because if we sell saddles in the order of contribution to sales margin, with the highest first, we will be able to cover our fixed costs more quickly and hence break even at a lower revenue.

Benefits and limitations of this break-even analysis

A benefit of this break-even analysis is that, based on the budget, it tells us the sales revenue required to cover our fixed costs. By knowing the break-even position, we can then determine the margin of safety that we have from the budgeted figures. The margin of safety is the amount by which sales revenue can fall from the total budgeted sales revenue before a loss is made.

As noted above, the budgeted total sales revenue is K\$380,000. Based on the weighted average contribution line we have a margin of safety of approximately K\$40,000 or 10.5%. Under the other assumption, the margin of safety is K\$55,000 or 14.5%. There is uncertainty surrounding sales mix, discounts (which will affect the

selling price achieved) and sales volumes, all of which will impact the total sales revenue that will be achieved. For example, if we give additional discounts of 10% on all saddles across the period, this will reduce sales revenue by a full 10%. This reduction is very close to the margin of safety.

However, there are some limitations associated with this analysis. Firstly, it is unlikely that we will sell saddles in the order of their contribution to sales ratios and therefore the break-even point of K\$325,000 is unrealistic. Equally, we know that there is uncertainty regarding the mix of sales and so it is also unlikely that we will sell our saddles in the budgeted mix. If, for example, the sales mix changed so that we were selling proportionately more Astrals than Meteors and Comets, this would reduce the weighted average contribution to sales ratio. In turn, this would increase break-even sales revenue and therefore reduce the margin of safety.

In addition, the analysis is based on budgeted figures which may not be accurate. The Sales Office and selling in Geeland is a new venture and therefore there may be unforeseen costs of shipping our saddles to Geeland or additional costs associated with running the Sales Office. If fixed costs were higher than budgeted, this would also increase break-even revenue and reduce the margin of safety.

Right-of-use asset

The right-of-use asset will be initially recorded at the initial measurement value of the liability plus any lease payment made at the start of the lease plus any lease arrangement fee. The initial measurement value of the lease liability is the present value of the lease payments that are unpaid at the commencement of the lease. Lease payments can include fixed payments under the agreement (which is K\$10,000 each year) and the exercise price of any purchase option at the end of the lease term.

For the fork-lift truck lease, the first payment is 31 August 2025, which means that all 5 annual payments of K\$10,000 will be included in the calculation of the lease liability. In addition, for this lease, there is an option to purchase the asset after 5 years for K\$20,000. This will also be included in the calculation of the lease liability because we expect to exercise this option. The lease liability will be the present value of all six of these payments discounted at the interest rate implicit in the lease, which is 10%. The right-of-use asset will therefore be initially recorded at this lease liability value plus the K\$2,000 lease arrangement fee.

In terms of subsequent measurement, the right-of-use asset will need to be depreciated in line with the principles of IAS 16: Property, Plant and Equipment. Since we expect to own the asset at the end of the lease term (as we expect to exercise the option to purchase the asset), the depreciation term will be the useful life of the fork-lift truck, which is 10 years. For the year ending 31 December 2024, this will result in 4 months of depreciation being charged to profit or loss (assuming that the fork-lift truck is available for use from that date), with the initial value of the right-of-use asset reduced by the depreciation. The depreciation will be calculated as initial

measurement value of right-of-use asset less any residual value expected at the end of assets useful life divided by 10 years, then prorated to reflect 4 months.

Geeland inventory measurement

In accordance with IAS 2: Inventories, inventory should be valued in the financial statements at the lower of cost and net realisable value. Costs should include purchase cost, costs of conversion and any other costs necessary to bring the inventory to its present location and condition. Net realisable value is the selling price of the inventory in the normal course of business less estimated costs of completion and any costs necessary for the sale to happen.

Using the horse rug accessory as an example, we need to establish what we can include as part of the cost of the inventory. This will include the purchase cost of K\$20.00 per unit, plus the import duty of K\$0.40 per unit, plus the delivery cost of K\$1.10 per unit. These latter two costs are included because these will be incurred to get the inventory to its present condition and location (that being the Geeland Distribution Centre). The insurance costs cannot be included if this is part of the cost of storing inventory, as it would not be necessary in getting the inventory into its location.

The net realisable value for a single horse rug will be the selling price of K\$40.00 less any costs necessary to make the sale. These include the delivery costs of K\$0.80 per unit. Clearly, we can see that the net realisable value is higher than cost and therefore we will include the horse rug inventory at its cost as defined above in the financial statements at the year end. However, if inventory is damaged or impaired in any way, this may reduce the net realisable value below the current level and hence this may change in the future.

SECTION 4

Sales variances

Sales price variances

There are adverse variances for the two Astral saddles, which means that average selling prices after retailer discounts for these models were lower than expected. The additional 10% discount given to retailers for Pony Club members will have contributed to this. In addition, it's possible that the retailers buying Astral saddles negotiated a higher level of general discount with Ben Harris than had been expected.

The variance for the Meteor: Type 2 saddle was nil, indicating that there was no deviation from our plan in terms of average price. The favourable variance for the Meteor: Type 3 saddle means that the average selling price for this saddle was higher than expected. It may be that Ben Harris was able to negotiate a lower level of discount with the new retailer on a significant order for this saddle type.

Sales volume variance

There are favourable variances for the two Astral saddles and the Meteor: Type 3 saddle, which means that during the quarter we sold more of these saddle types than we had budgeted. It's likely that by increasing the level of discount for the Astral saddles, Ben Harris was able to secure a higher number of sales. In addition, the significant order for Meteor: Type 3 saddles was probably unplanned. There is an adverse variance for Meteor: Type 2 saddles, which means that during the quarter we sold less of these saddle types than we had budgeted. This may be related to the lack of additional discount.

Sales mix profit variances

The sales mix profit variance measures the change in profit as a result of a change in the mix of saddles sold. The two Astral saddles have budgeted profits per saddle which are lower than the weighted average profit per saddle of K\$863. The adverse mix variance for Astral: Type 1 means that, for our actual volume of total sales, we sold proportionately more of this type of saddle than we expected to. The favourable variance for Astral: Type 2 means that we sold proportionately less of this saddle, even though we actually sold more of these saddles, as indicated by the favourable volume variance.

Both Meteor saddles have a profit per saddle which is higher than the weighted average. The adverse variance for Meteor: Type 2 means that we sold proportionately less of this saddle type. The favourable variance for Meteor: Type 3 means that we sold proportionately more of this saddle type.

Overall, for our actual sales volumes, we sold a greater proportion of Astral: Type 1 and Meteor: Type 3 than we had budgeted to, and we sold a lesser proportion of Astral: Type 2 and Meteor: Type 2. As noted above, given this is the first time we have sold

in Geeland, it's possible that our budgeted sales mix was incorrect. Possibly, the market has a greater preference for Type 1 and Type 3 trees. The discount situation might also have influenced the mix of sales, especially for the Astral: Type 1 saddle, given the additional discount for Pony Club members. The significant order from the new retailer will also have skewed the mix towards the Meteor: Type 3 saddle. It will be important to understand if this was a one-off order before adjusting the budgeted mix.

Sales quantity profit variances

The sales quantity profit variance measures the change in profit as a result of selling more or less at the standard mix. This variance means that profit has increased by K\$11,213 as a result of selling more saddles in standard mix than we expected to. This, together with the total adverse mix variance of K\$1,536, gives us the total favourable volume variance of K\$9,677, which has been discussed above. By splitting the volume variance into mix and quantity, we can see that profit was increased by the increase in quantity sold, although this was offset by the fact that, overall, we sold proportionately more of our less profitable models than budgeted.

KPIs for monitoring the performance of Ben Harris, Geeland Sales Manager

Percentage of discount invoiced each month by retailer

This would be measured for each retailer as the value of the discount invoiced in a month divided by the total list price of the saddles and accessories invoiced. This would be compared to previous months and to a target and tells us how much the goods that we sell have been discounted. Ben Harris has the authority to negotiate discounts with retailers and, whilst discounts are an important tool to attract retailers and to keep them buying saddles, an increasing percentage of discount means that margins are being reduced. We need to ensure that there is an appropriate balance between giving away discounts to gain volume and losing volume as a result of no discount, especially given that part of Ben's bonus is based on sales volumes.

Percentage growth in retailer base

This would be measured as the number of retailers at the end of the month less the number of retailers at the start of the month, divided by the number of retailers at the start of the month. Geeland is still a new sales territory for us and therefore it is important that the retailer base expands to build our presence in the market. Ben is responsible for signing up new retailers and therefore this KPI will give us an indication of how well he is doing this in terms of widening the retailer base.

Percentage change in sales value month on month

This would be measured as invoiced sales value this month less invoiced sales value last month divided by invoiced sales value last month. This could be in total, for each retailer individually, or on the basis of a like-for-like retailer base. It will be important to

track these percentage changes over time to establish whether there are any downward trends. If a retailer is small scale, this may need to be conducted quarterly rather than monthly. Ben's key responsibilities are to build the customer base and to generate sales, therefore sales value growth is a key element in understanding how well he has done this.

Event after the reporting period

In accordance with IAS 10: Events after the reporting period, the event on 28 January this year is an event after the reporting period. This is an event that happened after the year end but before the financial statements have been authorised. As such, we need to determine whether it is an adjusting event or non-adjusting event.

A non-adjusting event is one that is indicative of conditions that arose after the reporting date. The event on 28 January is such an event. We were notified that we are being taken to court for unfair dismissal. This dismissal happened on 2 January 2025 and therefore notification of the court case is indicative of a condition that arose after 31 December 2024. Therefore, even though our lawyers have assessed that there is a good chance that we will need to pay damages of K\$10,000, there is no need to make any adjustments in the financial statements for the year ended 31 December. If K\$10,000 is considered material, then we can disclose the nature of the event and its financial effect.



AICPA® & CIMA®

Together as the Association of International
Certified Professional Accountants

OPERATIONAL CASE STUDY

MAY & AUGUST 2024

EXAM ANSWERS

Variant 6

These answers have been provided by CIMA® for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1

CGMA cost transformation model

Managing the risks inherent in driving cost-competitiveness

Cost-competitiveness is about driving down the costs of making our saddles so that we are more competitive against other saddle-making companies. Cost reduction for its own sake though has risks and this part of the model is about managing those risks so that the cost reductions achieved do not damage the company.

A simple way that we could drive down our cost of production is to source and use cheaper raw materials. For example, we could use lower grade leather or we could use a cheaper type of tree construction. However, whilst this would reduce costs, the risk is that this is at the expense of the quality of the saddles that we are producing. Changing tree construction for the sake of cost could make our saddles less robust and ultimately in the long term this will affect our reputation at a quality saddle maker.

Another way that we could seek to reduce cost is to automate more of the production process, in a bid to reduce the current average production time for a saddle of 28 hours. Currently, production is a largely manual process from the cutting of the leather pieces to packing the finished saddle in its presentation box. Again though, it is important to balance any cost reductions from automation with considerations of quality. A higher level of automation reduces our ability to sell our saddles as handmade, which could have a detrimental impact of the price that we can achieve in the market for our saddles.

Understanding cost drivers and cost accounting systems and processes

In order to drive down costs, we need to fully understand why the costs that we incur arise and how different variables affect those costs. We need to be aware of the drivers of cost, as this will enable us to manage those drivers with the aim of reducing cost.

We currently use a standard absorption costing approach where we set the standards expected for raw materials and direct labour for each type of saddle that we produce. We also use facility-wide absorption rates, based on direct labour hours to absorb a proportion of variable and fixed production overhead into each unit of production. However, this approach does not provide any insight into the factors that are driving production overhead.

In order to achieve more understanding of what is driving cost in our Production Facility, we could implement activity-based costing. This would involve identifying individual activities within the facility (such as, for example, setting up the industrial sewing machines during assembly) and then identifying the cost drivers associated with each activity (for example, number of set ups). By understanding the cost drivers in detail, we are better placed to control and therefore reduce the cost.

Incorporating sustainability to optimise profits

Increasingly sustainability is a key consideration for investors and companies alike. Acting in a sustainable fashion means seeking to limit the impact of our operations and activities on the natural environment. Being seen to be acting sustainably can increase the reputation of our brand in the saddle market, which in turn potentially gives a boost to sales. Further, acting sustainably can lead to long-term cost reduction through lower levels of waste and more careful use of the resources that we have.

There are already measures that we use in our business to support sustainability. For example, we insist that our trees are made from wood taken from sustainable forests and all of the packaging that we use for our own saddles is made from 100% recycled cardboard.

However, there is much more that could be done. For example, we use a single leather butt for each saddle, with no use currently for the off-cuts. We should investigate the possibility of getting more pieces out of each butt, thereby reducing waste. This would have a double cost benefit in terms of a reduction in the cost of leather per saddle as well as a reduction in delivery costs, as fewer butts would be required. We should also consider using renewable energy to power our machines by possibly installing solar panels or a small wind turbine on site.

Inventory management

Taking a more aggressive approach to inventory management would mean that we seek to reduce the level of inventory we hold and thereby reduce the number of days that we hold inventory. Currently, total inventory days are 71 days, an increase of 15

days (27%) from the situation at our last financial year-end. The biggest increases appear to be in work-in-progress and finished goods inventory.

The benefits of a more aggressive approach

A benefit of taking a more aggressive approach is that our investment in working capital will reduce. This in turn means that less finance is required to fund working capital which results in lower financing costs and therefore an improvement in profit.

There will also be a potential reduction in the costs of holding inventory. We currently have separate warehouses on site for raw materials and finished goods, and, whilst in the short term, the costs of operating these are likely to be fixed in the longer term, we could consider either selling or repurposing one of these warehouses, which would then reduce the cost of holding inventory and therefore increase profit.

By reducing the amount of inventory on hand, we also reduce the risk of inventory becoming damaged whilst in storage. This is particularly relevant for raw material inventories such as leather butts and trees which might easily be damaged if not stored correctly. The shorter time these items are in storage, the less chance there is of damage occurring.

The drawbacks of a more aggressive approach

A key drawback of taking a more aggressive approach to inventory management is that we may not have the inventory available at the time we need it. For example, if we keep finished goods inventory low, we may miss out on sales opportunities if our retailers can obtain equivalent saddles to ours from our competitors without having to wait too long. Similarly, keeping raw material levels low might lead to disruptions in production, if items such as buckles or flocking aren't available when they need to be.

Another potential drawback is that our ordering costs might increase, which would reduce profit. If we keep inventory levels low, then we will need to order more frequently, and assuming that each time we order incurs the same cost, this will increase the total cost over a period. Linked to this, if we end up ordering smaller quantities more frequently, this could mean that we cannot take advantage of the bulk purchase discounts for flocking and consumables that we currently do take advantage of.

Just-In-Time (JIT) Purchasing

JIT purchasing is an approach that we could take for purchasing our raw materials. This involves timing orders so that raw materials are delivered and then used straight away in production. The impact of such an approach would be that raw material inventory would be virtually zero.

In order for JIT purchasing to work, we would need good relationships with our suppliers, which we have, because many of these suppliers have been with us a long time. However, our suppliers will need to be able to deliver our orders quickly, which could potentially be an issue for some suppliers, especially the leather suppliers

located in a different country. It is possible though that some of our local suppliers of inputs such as flocking may be able to deliver quickly as and when required. This might have to be investigated.

We would also need good information about future production and therefore purchasing requirements to ensure that we know what raw material inventory we will need and when we will need it. This will require investment in new systems, as our current systems are not that sophisticated. Adopting JIT purchasing is therefore not without its issues, but it might be possible to introduce the principles of the approach for some suppliers.

SECTION 2

Old sewing machine

If the decision is taken on 1 December 2024 to sell the old sewing machine, we will need to determine whether it meets the criteria to be reclassified as an asset held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations in our financial statements for the year ending 31 December 2024.

For an asset to be reclassified as an asset held for sale, it needs to be available for immediate sale in its present condition and its sale must be highly probable. A sale is highly probable when: management is committed to sell the asset; there is an active programme to find a buyer; the asset is marketed at a reasonable price; the sale is expected to take place within 12 months; and it is unlikely that the plan to sell the asset will change.

On the assumption that the decision is to sell, this would indicate that management is committed to the sale and it is unlikely that the plan will change. If it is advertised this month, this would indicate that there is an active programme to find a buyer. We expect to sell it in early 2025, so the 12-month criteria is met and presumably we will market it at a reasonable price, given that there is a good second-hand market given that the asset have been reconditioned.

All of the above would indicate that the old sewing machine would be available for sale in its current condition and the sale would be highly probable from the date of the SMT decision, which is 1 December 2024. At 31 December 2024, the asset held for sale will be recorded in the statement of financial position within a separate component of current assets.

The value included for the asset held for sale will be the lower of its carrying amount at the date of reclassification and fair value less costs to sell. The carrying amount at 1 December will be its carrying amount at 1 October of K\$8,400 plus the K\$2,500 spent on reconditioning less depreciation from 1 October to 1 December.

We keep depreciating the asset up until the date it becomes available for sale, even though we ceased to use it from the start of October. The reconditioning costs are capitalised because the reconditioning enhances the benefits that can be derived from the asset in terms of operating speed and a longer useful life.

Fair value less costs to sell will be the selling price less any costs of selling the machine such as advertising costs. If fair value less cost to sell is lower than the carrying amount, the difference will be charged to profit or loss, which will reduce profit. If fair value less costs to sell is higher than carrying amount, there will be no adjustment affecting profit.

Disposal of warehouse building

We have sold our warehouse building for more than we paid for it and as such, for tax purposes, it appears that a chargeable gain has arisen. Any chargeable gain will be subject to capital tax of 20%.

The amount of the chargeable gain is calculated as sale proceeds (K\$100,000), less selling costs (K\$5,000), less the original cost of the building (K\$25,000), less the expenditure to extend the warehouse (K\$15,000) less the indexation allowance available.

Indexation allowance will be available on the original cost from the date of original purchase until the date of sale and will also be available on the extension expenditure from the date of that expenditure until the date of sale. The indexation allowance will reduce the chargeable gain and is effectively an allowance for the impact of inflation.

Assuming that we have a chargeable gain, the effect on our tax payable is that it will increase by the chargeable gain multiplied by the capital tax rate of 20%.

Activity based budgeting for maintenance team employee costs

To establish a budget for maintenance team employee costs using an activity based budgeting approach, we need to firstly determine the activities that the employees will undertake, as these activities will drive the employee cost. For our maintenance team, this will be routine maintenance and repairs of machinery and equipment.

We then need to determine how many of each activity we expect in the budget period. Each machine or piece of equipment will have at least one routine maintenance check each year, with some items being checked more regularly. Presumably each machine or piece of equipment will require a different length of time for the check to be completed.

For example, larger items of machinery will take longer to clean and service compared to say a cutting die that may only need to be sharpened. Having established the expected time for each type of check and taking into account the number of checks required in the budget period, we can then calculate the total budgeted hours for routine maintenance checks.

For repairs, it is a little more complex because repairs may be needed for all sorts of reasons. Therefore, it will be difficult to determine the number of repairs required and also the time required for each repair. At this stage, we will just need to make a best estimate, possibly based on how often in the past we have had to call in external engineers to repair our machinery. One additional factor to consider is that some of the machinery and equipment is new and also we will be undertaking a more rigorous system of routine maintenance and so initially we might expect the number of repairs to be minimal.

Having established the total number of hours required for the maintenance team, we can then determine how many employees are required to achieve this. We should bear in mind though that an employee will not work 52 weeks a year, because of holidays and training. We also need to make sure that adequate set-up time between activities is included and to allow for unforeseen issues such as a major machine breakdown. The total budgeted cost for the maintenance team employee cost will be the number of employees multiplied by the annual wage or salary, including national insurance and pension costs as well as any other add-on costs.

SECTION 3

What-if analysis

The what-if analysis shown in Table 1 shows how much profit we would expect to generate in the quarter, January to March 2025, for different combinations of average selling price, average variable cost per unit and sales volume. As such, we can use the analysis to see how changing one or more of these variables will impact profit.

Our current budgeted profit is K\$117,500, which, as we can see from Table 1, means that for the quarter we are budgeting for the middle average selling price of K\$3,500, the lowest possible level of average variable cost per unit at K\$1,350, and sales volumes of 450 saddles. However, at this stage, we believe that average variable cost per unit could be higher than this and that sales volumes could either be lower or higher, due to the uncertainty in the market.

From Table 1, we can see that if sale volumes are 425, we expect to generate a lower profit than budgeted in all but one scenario (which is where selling price is at its highest and variable cost per unit is at its lowest). Similarly, if sales volumes are 475, we will earn a higher level of profit than budgeted as long as we don't reduce the average selling price to K\$3,325 or variable cost per unit increases to K\$1,550.

Also, if we focus on variable cost per unit, Table 1 indicates that if this were to rise to the highest level of K\$1,550 per saddle, this could lead to a loss rather than a profit where selling price is reduced to K\$3,325, even if we sell 475 saddles. A loss would also be incurred at sales of 425 saddles if we keep the selling price the same. Even if the variable cost per unit only increased to K\$1,450, we would be making a loss at the lower selling price unless we did sell 475 saddles.

The analysis also indicates that if we reduce selling price to K\$3,325, in all scenarios profit will be less than budget, and in many cases, could be a loss depending on what happens to average variable cost per unit and how many are sold. Conversely, if the average selling price is increased, we can expect a higher profit than budget unless we sell only 425 saddles and variable cost per unit increases.

Therefore, this what-if analysis gives us some useful information in relation to the scenarios where profit will be higher or lower than currently budgeted. However, it does not give us any indication of the likelihood of any of these scenarios happening.

Expected value and statistical measures

An expected value is the weighted average of all possible outcomes, each weighted by the probability of that outcome occurring. In our case, the possible outcomes are shown in Table 1 and represent profit. For each possible selling price (which is the variable within our control and therefore what we need to make a decision on), there are nine possible outcomes depending on the combination of average variable cost per unit and sales volumes.

To calculate the expected value for each different selling price, we multiple each of the nine possible outcomes with the probability of that outcome happening. These probabilities are joint probabilities based on the chance of the average variable cost per unit being one of the three possibilities and the chance of 425, 450 or 475 sales volume. For example, the joint probability of achieving our budgeted outcome is 0.50 (the probability of average variable costs per unit being K\$1,350) x 0.60 (the probability of sales volume of 450 at an average selling price of K\$3,500).

The expected values in Table 3 therefore are an estimate of the expected outcome; in this case, profit at each average selling price, on the assumption that this option is repeated many times. For example, at an average selling price of K\$3,500, the average outcome based on the probabilities is K\$86,000, which is lower than the profit we budgeted to make at this average selling price.

Standard deviation is a measure of the possible variations of the outcomes from the expected value and is therefore a measure of volatility, an indication of risk. Here, a selling price of K\$3,675 has the highest standard deviation and an average selling price of K\$3,325 has the lowest standard deviation. This would indicate that, in absolute terms, the outcomes at the average selling price of K\$3,675 have the greatest volatility, although this does not necessarily mean that this option is the riskiest.

The coefficient of variation is standard deviation divided by expected value for each option. This gives the relative size of the risk when compared to the expected return and enables us to compare the risk and return associated with each of the different average selling prices. An average selling price of K\$3,675 has the lowest coefficient of variation and is therefore the least risky of the three options.

Attitude to risk

If the decision maker takes a risk neutral approach, they would select the average selling price with the highest expected value. This is K\$125,288 at an average selling price of K\$3,675.

If the decision maker takes a risk seeking approach, they would select the selling price which gives us the best result irrespective of the probability of it happening. This is K\$254,375 which is the best result at an average selling price of K\$3,675. This ignores the fact that the joint probability of this outcome is only 0.2 x 0.1.

If the decision maker takes a risk averse approach, they would select the selling price which given the same level of return, has the lowest level of risk. Here, they would choose the option that has the lowest coefficient of variation because this represents the amount of risk for each K\$1 of expected profit. Here, the average selling price of K\$3,675 would also be selected.

Limitations of the information in Table 1 and drawbacks of using expected value

One limitation with the information in Table 1 is that we have assumed that there are only three possible options for each of the variables, giving us 27 possible outcomes. In reality, there will be many more possible outcomes than this as, for example, variable cost per unit is likely to be anything between K\$1,350 and K\$1,550 and equally sales could be any value between the upper and lower limit. In addition, the selling prices and variable costs per unit are average positions based on the budgeted mix of products. Any change in mix will affect these averages.

One drawback of using expected values to decide on the average selling price is that it assumes that this decision will be repeated many times. This in turn means that the weighted average outcome is representative of the average outcome for all of these decisions over time. However, this is a one-off decision in respect of setting prices for the next quarter and as such will only have one possible outcome.

Additionally, using expected value is a risk neutral approach to decision making. As noted above, using this approach, we would select an average selling price of K\$3,675, even though there is a possibility that this could result in an outcome lower than the current budget if average variable costs per unit increase and sales volumes are at the lower level. The probability of this occurring is ignored when expected value is used to make the decision.

SECTION 4

Fixed production overhead variances for January to March 2025

Expenditure variance

The adverse expenditure variance of K\$16,750 means that more was spent on fixed production overheads than had originally been budgeted for the period. Fixed production overhead includes a wide range of expenditure (including indirect labour and property-related costs) but, given that these are fixed costs, we would usually expect this to be consistent for a given level of activity. The reasons for this adverse variance will be the additional costs that were not anticipated when the budget was set. These include the additional supervisor, the bonuses for indirect costs and rental costs for additional equipment.

Efficiency variance

The favourable efficiency variance of K\$14,700 means that we used less direct labour hours to produce the actual number of saddles that we made, compared to what we should have used based on the standard. This measures the efficiency of the absorption base and indicates that our direct workers overall were more efficient than we expected them to be. It is possible that the new direct employees worked at a faster rate than our normal employees because of their experience, or that all employees worked faster because of the bonus incentive. In addition, machinery working more quickly than anticipated may also reduce the time required for the direct employees. However, although the variance is favourable overall, there are reasons why employees would have taken longer than standard. These include the fact that some of the new manual processes took longer and even the experienced new employees would have required training time.

Capacity variance

The favourable capacity variance of K\$30,250 indicates that more labour hours were worked than budgeted, reflecting an increase in the capacity of direct labour. This increase is due to the additional direct employees taken on as well as the overtime worked during the period. Note that the efficiency and capacity variances added together give a favourable volume variance. This is due to higher production of saddles than expected during the period.

Total variance

The favourable total variance of K\$28,200 means that actual expenditure is lower than the amount absorbed and that we have therefore over-absorbed fixed production overhead. The reasons for this are as explained above in respect of the individual variances.

Planning and operational variances

To assess the performance of individual managers, such as Jack Newman, Production Manager, it is important that the variances against which their performance is being assessed have arisen due to their actions and their actions only. It would be unfair to assess their performance against variances which included the impact of decisions and actions that were out of their control.

Therefore, it is useful to split variances into planning and operational variances. A planning variance represents the difference between original standards and revised standards. In this instance, revised standards will reflect the impact of actions taken by John Kanann, such as the bonus scheme. Jack Newman had no input into this decision and hence should not be held accountable for the effect of these actions on the variances. Revised standards will also reflect the impact of errors in the original standards; for example, manual processes taking longer than originally expected and machinery working at a quicker pace.

In contrast, operational variances represent the difference between the actual results and the revised standards. These variances are a good measure of the performance of individual managers such as Jack Newman. They reflect the impact of the direct actions they have taken as well as their general management of the operations. The effect of the decision to employ the experienced direct employees and to employ the additional supervisor were decisions undertaken by Jack and would be included as operational variances.

KPIs

Employee retention rate

This would be measured as number of employees retained at the end of the month divided by total number of employees during the month. The aim would be to have as high a retention rate as possible. Employee retention is an important way to monitor how well Jack Newman is managing the employees he is responsible for. If the rate is lower than a certain target (say 95%), this could indicate that employees are unhappy or demotivated, perhaps because working conditions are not good or relationships with the manager are poor. We would need to be careful when using this to assess Jack's performance that factors outside of his control, such as the impact of bonus schemes and such like on employee satisfaction, were taken into consideration.

Percentage of total direct employee hours recorded as idle time each month

This would be measured as direct employee idle time divided by total direct employee time paid for in a period. Part of Jack Newman's role is to ensure that the employees are responsible for work as efficiently as possible and this includes making sure that employees are being utilised properly. Direct employee idle time shows a lack of

efficiency as it represents time paid for where the employee is being unproductive, which is why this should be monitored.

Employee absence rate

This would be measured as days that employees are absent divided by days employees should have been paid for during the period. The aim would be to have as low a level of absence as possible as employee absence is potentially disruptive for production schedules. A higher-than-target absence rate could indicate that employees are not happy at work, maybe overtime levels are too high or employees are not happy with how work is being scheduled, both of which are under the control of the Production Manager. Again, we would need to be careful to factor in any one-off events, such as maybe an outbreak of flu, which could affect this measure, but be outside of Jack's control.

Operational Level Case Study – Examiner’s report

May and August 2024 exam sessions

This document should be read in conjunction with the examiner’s suggested answers and marking guidance.

General comments

The Operational Case Study (OCS) examinations for May 2024 and August 2024 were based on Kanann, a company that designs, makes and sells saddles for horse riding. Companies such as Kanann are known as saddle makers. The company is based in Keeland, a country located in mainland Europe which has the K\$ as its currency.

Kanann was founded in 1906 by William Kanann. The saddles made and sold by Kanann today are based on traditional designs and are marketed as general-purpose saddles rather than specialist saddles. Their more traditional design means that Kanann saddles have limited appeal in some modern markets. The innovation and developments seen in the products offered by other saddle makers, but lacking in Kanann’s saddles, are thought to be reasons why Kanann’s sales have not increased as much as those of some other brands. The general perception in the market is that, although Kanann’s saddles offer value for money, the company has significantly fallen behind the times.

Throughout the company’s history, it has been owned and managed by the Kanann family. The company’s current Managing Director is John Kannan. John’s daughter, Freya Kanann, has participated in equestrian sports from when she was a small child. She is now an international show jumper and represented Keeland at the recent World Equestrian Games. She recently graduated with a first-class honours degree in Accountancy and Finance and now combines competing with working part-time at Kanann.

In the year to 31 December 2023, the company’s revenue was K\$5.9 million, gross profit was K\$2.0 million and profit before tax was K\$0.5 million.

Six variants were written based on Kanann. The focus of each variant was as follows:

- Variant 1: Launch of a range of saddles made from vegan leather.

- Variant 2: Expansion of the product range manufactured to include bridles.
- Variant 3: Launch of a service to make bespoke saddles.
- Variant 4: Launch of a range of specialist saddles for showjumping.
- Variant 5: Expansion of sales into a new territory.
- Variant 6: Significant re-organisation of the Production Facility.

Each variant was based on the OCS case study blueprint and covered all core activities in accordance with the weightings prescribed. A levels-based approach was used for marking candidate answers. Each variant consisted of four tasks and each of these tasks was broken down into between two and four sub-tasks. Each sub-task was broken down into traits for marking. For each trait, there was a detailed marking guide which split the total mark available into three levels: level 1, level 2 and level 3. It was also possible to achieve a score of zero for a trait if there was no rewardable material.

To reiterate from previous examiner reports, if a candidate scored only at a level 1 on a trait, it is likely that they did some or all of the following:

- Demonstrated limited technical understanding of the topic area, with gaps in knowledge and understanding.
- Identified issues and points rather than explained or justified why the issue or point being made was relevant or important.
- Provided answers that were too brief or lacked clarity.
- Failed to reference the information given in the unseen information or failed to relate their answer to the task scenario and the specifics of the company.
- Failed to answer the task given, instead providing the answer to a different task from a previous OCS exam.

As is always the case, to achieve a level 3 on a trait, it was expected that a candidate would demonstrate **good technical understanding** of the topic being tested and **apply** this technical understanding to the company and the particular scenario within the task, providing **clear** and **comprehensive** explanations that referenced the information given.

Please note the bolded words above. As is mentioned in each and every examiner's report, demonstrating good technical understanding is not enough on its own to pass. Candidates need to demonstrate technical understanding in the context of the scenario and the particulars of the issue being addressed. Information given to candidates as part of the task is there for a reason and should be, as far as possible, incorporated into answers, along with relevant information from the pre-seen. Application to the scenario is key to achieving high level 2 and level 3 scores. Clearly where there are gaps in knowledge, application is not possible and therefore the importance of candidates ensuring that their knowledge base is complete needs to be reiterated. In addition, to score at high level 2 or level 3, answers need to be an explanation or justification rather than a description, identification or simple statement.

Candidate performance

As is usually the case, candidate performance was varied:

- There were some excellent answers, with a number of candidates achieving more than 80% of the marks available. Such answers were an absolute pleasure to mark. These candidates' answers demonstrated good technical understanding and provided explanations rather than descriptions. These explanations were clear, detailed, well structured and were applied to the scenario and referenced the information given in the case.
- However, there were also a significant number of candidates that achieved less than 25% of the marks available, which is very disappointing. Most of these candidates attempted to answer all sub-tasks, but seemed unprepared for the exam, with their answers demonstrating poor technical understanding and completely lacking in clarity and depth.
- As is usually the case, overall, the majority of candidates were in the mid-range of marks. Some of these candidates were mid-range because they had specific gaps in technical knowledge, which meant that they scored poorly on some sub-tasks but did well in other sub-tasks. For most candidates in the mid range though, answers for sub-tasks were consistently at level 2, usually because of a lack of depth in answers and application to the scenario or reference to the information given.

Specific topic areas where many candidates demonstrated good technical understanding (and usually good application) included IAS 16 initial measurement, IFRS 5 criteria for reclassification, CGMA cost transformation model, beyond budgeting, non-financial issues in decision making, motivational aspects of budgeting, rolling budgets, working capital management and basic variances (raw materials, direct labour and sales price). The areas where candidates demonstrated a lack of technical understanding included variable and fixed overhead variances, sales mix and quantity variances, all taxation issues, responsibility accounting, short-term investment options, decision trees, make or buy decisions and activity based budgeting.

As has been reported many times, there continues to be a lack of depth of explanation or justification in some of the tasks, especially in relation to financial reporting tasks. Remember, an explanation requires more than a short sentence on a point, or simple identification of a rule in a financial reporting standard. Similarly, in tasks where candidates are asked to explain a chart or table in an exhibit, this needs to be an explanation rather than a description. An explanation adds value to the information provided, whilst a description simply restates what is already there. This is particularly relevant for tasks on what-if analysis, multi-product break-even analysis, linear programming, make or buy decisions and so on. Application to the specifics of the scenario by referencing the information given is also lacking at times. There was also a lack of clarity in certain areas such as explaining the meaning of an adverse or favourable variance or how a KPI would be measured.

With respect to the core activities for this session, candidate performance was typically best for F (working capital), C (performance evaluation) and E (decision making). The less competent core activities appeared to be A (costing), B (budgeting), D (financial

reporting), but this often depended on the topic area that the task was based on. Most answers were clearly laid out with heading and sub-headings, and timing did not seem to be an issue for most candidates.

To sum up, as has been noted many times before, the difference between a fail/bare pass and a good pass is often a candidate's ability to apply their technical understanding to the scenario and to incorporate this application into their answers consistently. Candidates should also pay attention to their clarity of explanation and ensure that they have addressed all parts of the sub-task. The same general advice to candidates applies to this session as much as all the previous sessions: answer the sub-task set (not what you wish had been set based on your pre-prepared answer), answer all parts of the sub-task and demonstrate technical understanding within the context of the business and the sub-task, referring as much as possible to the information given to you.

Variant 1

Task 1

The first sub-task asked for an explanation of how the decision tree should be used to financially evaluate which option should be selected to complete the suitability testing on the vegan leather. This tested core activity E. This was not well answered by most candidates, with few achieving more than a low level 2. The problem with many candidates' answers was a lack of depth in their explanation. Too many candidates simply repeated the information they were given for the expected values (EVs) in Diagram 1 and concluded that EV1 should be selected because it had the lowest cost of K\$82,000. This ignored the facts that further costs would have to be incurred in setting up in-house testing facilities and then either training staff or incurring a recruitment fee. A minority of candidates also deducted, rather than added, these further costs to the EVs provided, which made their answers rather confusing. What was required was a clear explanation of firstly how the D2 decision should be made on financial grounds, and then working backwards to explain the D1 decision for choosing either the option of university testing or the lowest total cost of the in-house facility.

The second sub-task asked for an explanation of the limitations of using the decision tree for this decision. This tested core activity E. Most candidates were able to explain some limitations in general terms, but very few candidates made use of the data provided in Diagram 1 to discuss the potential risks of incurring high costs with either in-house option, compared to the certainty of the University testing option, resulting in a loss of marks through a lack of application.

The third sub-task asked for an explanation of the appropriateness of the overdraft and the bank loan as methods to provide additional liquidity, if required, in the development phase of the project. This tested core activity F. Most candidates were able to make some valid points on the use of either a bank overdraft or a bank loan in their answers, and usually arrived at a conclusion as to which source of finance they considered to be the best. Candidates recommending the overdraft often placed too much reliance on the company's cash balance of K\$212,000 from 6 months ago and failed to consider the risks of cost over-runs or time delays in the project.

The fourth sub-task asked for an explanation of what financial and non-financial factors should be considered before the company delayed payments to suppliers. This tested core activity F. This was well answered by most candidates who made a number of valid points about supplier relationships and potential loss of company reputation if payments were delayed. As a result, most candidates scored at higher level 2 and level 3.

Task 2

The first sub-task asked for an explanation of how both the sale of the IXO G1 and the purchase of the IXO G3 would be recorded in the financial statements for the year ending 31 December 2024. This tested core activity D. The disposal was well attempted by many candidates who showed sound basic understanding of the criteria for recognising and how to account for an asset held for sale. Some candidates missed that the asset will have been disposed by the year-end and therefore would need to be derecognised. The asset

purchase was also usually reasonably well answered. Weaker candidates lost marks here by not explaining the criteria for treating the purchase as an asset and/or justifying the costs to be included, often just stating that K\$108,000 should be capitalised. Candidates seemed to ignore the implication that this task had a 48% weighting, thereby requiring a reasonable level of depth to the explanation. Overall, most candidates scored at level 2 for this task.

The second sub-task asked for an explanation of how information prepared by a management accountant would support the needs of management for the vegan saddle project. This tested core activity A. This could have been better answered. It was expected that candidates' answers would discuss management's need for costing information for planning, control and decision making. Whilst this was apparent in most answers, too many candidates discussed the benefits of having a management accountant in terms of the skills that such a person would have and by taking pressure off the Finance Department. This should not have been the focus of candidates' answers, and some application marks were lost as a consequence. That being said, many candidates did score at level 2 here.

The third sub-task asked for an explanation of the principles upon which the company should base short-term decisions and whether changing to a marginal costing system would help to make better short-term decisions. This tested core activity A. Most candidates clearly demonstrated an understanding of marginal versus absorption costing in their answers and were able to provide some arguments for the use of marginal costing for decision making.

Task 3

The first sub-task asked for an explanation of how beyond budgeting differed from the current system of incremental budgeting and whether it would be beneficial for Kanann to use beyond budgeting across the business. This tested core activity B. Candidates' answers tended to be one of two types: either they had a sound knowledge of beyond budgeting and were able to explain this in the context of the business (scoring at high level 2 or level 3) or they had very little knowledge and were therefore unable to add context (scoring at level 1). Some candidates explained the advantages of zero based budgeting or bottom-up budgeting in a somewhat desperate attempt to say something sensible about alternative methods of budgeting in contrast to incremental budgeting.

The second sub-task asked for an explanation of the impacts imposing a budget could have on team managers. This tested core activity B. Most candidates seemed to find this a much easier sub-task than the first sub-task and could usually make a number of relevant points. Weaker answers usually lacked depth by either just providing a list of bullet points, or just explaining positive points instead of both positives and negatives. Some candidates' answers could also have been more clearly focused on the impact on team managers, rather than the impact on business performance.

The third sub-task asked for suggestions of three KPIs that could be used to monitor product quality for the vegan saddles, and to explain how each KPI could be measured and why it would be appropriate. This tested core activity C. This was not particularly well answered, considering that KPIs are examined in every case study exam. Whilst many candidates could make KPI suggestions, it was not always made explicit how the KPI would be measured and, even when an attempt was made, this was often not SMART. Also, a

number of candidates failed to focus on the vegan saddle and instead suggested KPIs for general production-related issues such as raw material supply problems, labour efficiency and machine downtime. Whilst some of these may have been relevant to quality, the focus of these types of answers needed to be better.

Task 4

The first sub-task asked for an explanation of issues that should be considered in using the Comet as a basis for creating a standard cost card for vegan saddles to report appropriate variances. It also asked candidates to focus on material usage, labour efficiency and machinery efficiency and capacity. This tested core activity C. This was not the usual type of question for explaining variances. Whilst many candidates made some attempt to apply their answers to the task, they often either just repeated the information they were given in Table 1 or explained how the four variances would be calculated (often incorrectly for machine capacity). What was often missing was a clear explanation of why the Comet wasn't a suitable basis for the vegan saddle standard cost card, with many simply stating that the Comet standard cost card was not appropriate. Answers here tended to be lower to middle level 2.

The second sub-task asked for an explanation of how and why the standards and budgets should be revised, given the expected rising inflation, to ensure their relevance for planning and control purposes at the monthly meetings. This tested core activity B. This was answered reasonably well by most candidates, with many scoring at higher level 2. Candidates usually explained the control element well and demonstrated sound technical understanding of responsibility accounting, often suggesting the use of rolling budgets which was appropriate. However, few candidates went on to also explain the importance of revising budgets for planning purposes, for example, for cash and resources planning. Very few candidates considered the relevance for pricing considerations.

The third sub-task asked for an explanation of how inflation and the purchase of new machinery would impact operational gearing, planned break-even point and profits. This tested core activity E. Very few candidates understood the term "operational gearing", showing a lack of technical knowledge. Candidates invariably thought this was to do with debt versus equity, which is financial gearing and how the new machine should be financed. It was not always clear also how the purchase of the new machinery would impact on the planned break-even point and profits. In contrast, candidates could usually make sensible observations on how inflation would impact on the break-even point and on profits, although they tended to be rather obvious points and were often quite brief.

Variant 2

Task 1

The first sub-task asked for an explanation of how each of the costs shown in Table 1 should be recognised in the financial statements for the year ending 31 December 2024 if the company bought the machine from Bard. This tested core activity D. Most candidates did well here, stating the relevant rule and then applying it to each cost item. Candidates lost marks where they did not justify the treatment of each item fully. It is not enough to just state whether each item would be capitalised or not for a good score. Justification demonstrates understanding and application of the standard using the context provided.

The second sub-task asked for an explanation of the additional financial and the non-financial information that the company should consider when deciding whether to produce or buy-in the buckles. This tested core activity E. This was intended to be a relatively straight-forward make or buy decision using relevant costing. Some candidates did not recognise this as a relevant costing exercise and did not explain the information in the table. Many candidates did say that Kannan should buy in the cheek pieces but did not fully explain the rationale behind this (for example, they did not justify why only variable cost is relevant). A lack of full justification of the treatment of costs was the main reason candidates scored at level 2 rather than level 3 for this part of the sub-task. Some candidates mistakenly compared the full production cost with the buy-in price. In relation to the identification of non-financial issues, most candidates were able to come up with sensible points in relation to the appointment of a new supplier and the potential impact on internal resourcing. However, some poorer scripts tended to make points about whether the product would succeed, or be popular in the market, which was not relevant to the actual decision on whether to make or buy.

The third sub-task asked for an explanation of how introducing an age analysis of outstanding trade receivables may help to monitor trade receivables and improve collections from what were Bard's customers, with reference to the information in Table 3. This tested core activity F. Most candidates were able to interpret the information in Table 3 and mentioned the two customers that had either significant proportions of debt outstanding or had gone over their credit limits. In addition, candidates were able to articulate what an aged receivables report would look like and how it would help Kannan with targeting credit control. Poorer scripts tended not to use the information or highlighted the issues that were apparent without really going as far as to say how this information could have a positive impact on debt collection. Most candidate's scored mid to higher level 2 here.

Task 2

The first sub-task asked for an explanation of the value at which the inventory in Table 1 would be stated if it was measured in accordance with IAS 2. This tested core activity D. Most candidates were able to state the rule (although some poorer scripts said inventory was valued at the higher of cost and NRV). For the most part, application of the rule to the examples given was good. Some candidates got distracted by the replacement cost of unprocessed leather in note 2 and lost marks here. In tasks such as this, clarity of explanation and full justification of the treatment of cost is important to score well. Some candidates knew what the measurement should be but did not explain it fully and so scored at level 2 rather than level 3.

The second sub-task asked for an explanation of the appropriateness of each of the two short-term investment methods, a certificate of deposit and a bank deposit account, for the deposit of surplus funds. This tested core activity F. Most candidate answers to this were poor, highlighting a weak knowledge base in this area. Candidates were able to show they understood that the return on both investments was low due to lower risk. However, there was confusion over the relative liquidity of the two investments. Many candidates stated that deposit accounts were more liquid than certificates of deposit, not recognising that there were often limits on withdrawals or notice periods on these accounts. Most candidates did not recognise that certificates of deposit are tradable, thus more flexible.

The third sub-task asked for an explanation of the current system of incremental budgeting and how changing to rolling budgets for bridle production would improve planning, including planning for resource acquisition and utilisation. This tested core activity B. Many candidates produced good answers here, with many at high level 2 and level 3. Most candidates were able to explain incremental budgets and rolling budgets. There were some very good answers where candidates had tried to think about bridle production and apply this to rolling budgets, bringing in specific aspects of resource acquisition. However, some candidates' answers lacked application and gave general benefits of rolling budgets. These types of answers tended to score mid to low level 2.

Task 3

The first sub-task asked for an explanation of how the labour variances for bridle production had been calculated, what they meant and possible reasons why they had occurred. It also asked for an explanation of what the fixed production overhead variances meant and how bridle production will have impacted these variances. This tested core activity C. The task was a little different for each type of variance. For fixed overhead variances, candidates had to explain the impact of bridle production on the variances (as opposed to the reasons for the variances). This did throw some candidates who failed to do this, particularly in relation to the fixed overhead efficiency variance. Weaknesses on this task included stating that the labour rate variance was down to overtime (which is classified as variable overhead) and a lack of knowledge of the fixed overhead capacity variance. Candidates need to be very specific when explaining how a variance is calculated as many missed out on easy marks. Most candidates ended up a mid level 2 here.

The second sub-task asked for suggestions for one KPI for each of labour efficiency, machine utilisation and product quality. For each of the KPIs, it asked for an explanation of how it would be measured and why it would be appropriate. This tested core activity C. Candidates are reminded that KPIs need to be SMART and, as such, candidates need to explain clearly how each KPI is measured. Justification is also key for achieving level 3 marks. Many candidates did not quite get there with these, as answers tended to be a little vague. Candidates should take time to articulate their ideas clearly on this type of task.

The third sub-task asked for an explanation of the part ethics should play when choosing a supplier. This tested core activity E. There were some bits of key information in the preamble to this task that candidates needed to apply in their answer. Despite this, answers still seemed very vague and did not focus on the unethical employee practices. Many candidates discussed sustainability at length, which is different to ethics. Others focused on areas related to fraud or transparency of financial transactions. Some candidates cited

the CIMA code of ethics but failed to apply it to the issue put before them, which was about employee practices. As a result, most candidates scored at level 1 or lower level 2.

Task 4

The first sub-task asked for an explanation of the current costing system and the problems that arise from using it. This tested core activity A. Candidates were expected to cover two main issues here: the blanket absorption rate and the direct labour hour rate used for both variable and fixed overheads. Most candidates tended only to concentrate on the direct labour hour rate (despite the hint in the next task). The issues concerning this were well articulated and applied for the most part. Although, marks were typically limited to level 2 because of focusing on one aspect only.

The second sub-task asked for an explanation of the benefits of setting up cost centres with individual absorption rates and the additional benefits of activity-based costing. This tested core activity A. Most candidates focused on activity based costing (ABC) and did not comment much, if anything, on cost centres and individual absorption rates. Answers in relation to ABC were good and well applied but, again, marks were limited to level 2 because only half of the task was addressed.

The third sub-task asked for an explanation of the data in the graph and the difficulties that the company would face in applying time series analysis and four-point centred moving averages to this data to forecast quarterly sales volumes for bridles. This tested core activity B. This task was a little different to previous tasks of this kind as there were no seasonal variations shown in the data and the trend was not clear. This did throw some candidates. However, most candidates were able to explain how data would normally be used and then explain why in this case it would be problematic. Candidates were also able to interpret the graph well. Unfortunately, some candidates' answers lacked depth and did not go much beyond saying that there was no trend.

Variant 3

Task 1

The first sub-task asked for an explanation of the difficulties that Kanann would need to consider when costing the development and use of the app. This tested core activity A. Most candidates could explain the different costs associated with the development and use of the app and most did comment on Kanann's lack of experience and expertise to develop the app internally. Some candidates did then go on to address the difficulties of costing the app (for example, determining the lifespan of the app and predicting the nature of future updates and fixes that might be required), although this was often quite limited. Due to this lack of focus on the difficulties and also a lack of application to the scenario, many candidates scored at mid level 2.

The second sub-task asked for an explanation of the difficulties that Kanann would face in controlling the full production cost of bespoke saddles excluding the costs of the app. This tested core activity A. This was not well answered. Some candidates missed the point that this was about the physical saddle rather than the app and repeated many of the points made in sub-task (a). Other candidates did mention that the overhead absorption rate would need to change as a result of the increased automation and that staff would need training, which were valid points. However, few candidates grasped the issues arising from the saddles being bespoke (in terms of materials and labour) or the issues with the additional costs such as the saddle fitter and travel costs. Even where candidates did pick up some of these issues, answers lacked depth in terms of application.

The third sub-task asked for an explanation of big data and if it would be of benefit or not when producing sales budgets. This tested core activity B. Most candidates were able to provide a good explanation of big data and scored well on this trait. Explaining whether it was beneficial for producing sales budgets was less well answered. Many candidates failed to focus on the sales budget and instead commented on the use of big data in general for budget purposes. Many candidates did give a balanced answer of positive and negative points, although these were often general points rather than applied to Kanann and the bespoke saddle. Some candidates commented at length on the 4 Vs in a general sense and, whilst this was part of the answer, scored few marks because of the lack of balance and application.

Task 2

The first sub-task asked for an explanation of how the sale of the ZZ3 would be recorded in the financial statements for the year ended 31 December 2024. This tested core activity D. This was generally not well answered. A common issue was that many candidates treated this as a disposal, even though control of the asset will not have passed until after the year-end. That being said, many candidates did demonstrate good understanding how an asset held for sale would be measured in terms of lower of carrying amount and fair value less costs to sell and did apply this to the information given.

The second sub-task asked for an explanation of the difference between accounting depreciation and tax depreciation with reference to Table 1. It also asked for an explanation of how the AX1 would be treated in both the financial statements and the corporate income tax calculation for the year ended 31 December 2024. This tested core activity D. Most candidates demonstrated understanding that accounting and tax depreciation are different, but often only commented on adding back accounting depreciation and deducting tax depreciation to calculate tax, rather than giving any explanation of why they were different. Many candidates missed marks because they failed to address the disposal of the asset in either the financial statements or the tax computation. Even where candidates did attempt this, answers were often very confused, especially in relation to the tax computation.

The third sub-task asked for an explanation of how Kanann could use time series analysis to predict sales of saddles, including sales of the new bespoke range and any difficulties the company would face. This tested core activity B. Many candidates focused on the different methods of establishing a trend line and seasonal variations from a time series, which was useful to a point, but then didn't expand enough on the new bespoke range (or indeed saddles at all) and the difficulties that were faced in forecasting those sales. Some candidates did pick up on the inflation point, but many ignored this. As a result, very few candidates scored more than a mid level 2.

Task 3

The first sub-task asked for an explanation of the information in Table 1 and how the size of the team chosen would be dependent on the risk profile of the decision taker. It also asked for an explanation of the issues to be considered when using the statistical analysis in Table 1. This tested core activity E. Most candidates were able to explain expected value, although not all candidates give clear explanations of the meaning of the standard deviation and co-efficient of variation measures. Very few candidates commented on the payoff information itself, despite the task asking for an explanation of the information in the Table 1 (which meant all of the information). Most candidates were able to explain how a risk seeking and a risk neutral attitude would affect the choose of team size. Fewer were able to accurately explain how a risk adverse attitude would affect the choice, with many candidates concluding that the team with the lowest standard deviation would be chosen. Most candidates were able to come up with sensible comments about the issues to be considered, including the subjectivity of the probabilities and estimates and the problems with using expected values to make decisions. Answers here would have been improved with greater use of the information in the payoff table to help illustrate points (for example, commenting on the fact that using expected value ignores that fact that there is a 13% chance of a loss of K\$4,800). On the whole though, this was well answered with a number of candidates achieving level 3 scores.

The second sub-task asked for suggestions of three KPIs which could be used to monitor the performance of each individual saddle fitter in the team and one KPI which could be used to monitor cost control of each saddle fitter. For each KPI, it also asked for an explanation of how it could be measured and why it would be appropriate. This tested core activity C. Candidates could usually come up with sensible KPIs. However, like other KPI tasks, what was lacking was a clear explanation of measurement and a clear justification for why the KPI was relevant. Where measurement was addressed, this was often vague – candidates must remember that KPIs need to be SMART.

Task 4

The first sub-task asked for an explanation of what each of the sales variances in Table 1 meant, giving reasons why the variances had occurred and what the variances indicated about the relationship between the sales of Comet and Bespoke saddles. This tested core activity C. This type of task has been asked many times before, but answers were surprisingly poor compared to previous sessions. In particular, most candidates were unable to explain the sales mix variance with any degree of accuracy. Most candidates grasped that sales volumes were higher than budget for both the Comet and the Bespoke, but then gave the reason for the Bespoke variance as the discount, when there was actually a favourable price variance for Bespoke. Very few candidates commented on the relationship between the two saddles. Most scores here were in the mid range.

The second sub-task asked for an explanation of what a comparison of the infographics in Table 2 showed and the impact of the new product on the company's working capital cycle and cash balance. This tested core activity F. This was done well by most candidates, with many scoring at level 3. Some candidates misread the information and took the 10-month period to be post the introduction of Bespoke but were given some credit for sensible comments based on this interpretation. There was a good level of application in answers here, with many candidates giving sensible reasons for the changes in inventory, payables and receivable days as a result of the launch of the Bespoke saddle.

The third sub-task asked for an explanation of why a high rate of growth in the sales of Bespoke saddles could lead to operational problems for Kanann. This tested core activity E. This was answered well by many candidates who focused on operational issues related to staffing levels, inventory availability and machinery capacity. These candidates showed a good understanding of the nature of the bespoke product in that it would be made to order. Some candidates did focus only on cash issues and, as a result, this limited the mark that they achieved because of a lack of depth.

Variant 4

Task 1

The first sub-task asked for an explanation of the impact of each of two different options on budgeted revenue, contribution and profit for the K-Jump range. This tested core activity B. A significant proportion of candidates simply described the impact rather than explained it. These answers were limited to a level 1 score because an explanation requires candidates to add value to the information given. On a positive note, many candidates were able to correctly explain that a reduced contribution margin caused the disproportionate increase in variable costs observed with Option 1, whereas the increase in total variable cost was proportionate to sales revenue in Option 2 because the contribution margin did not change. However, only a few candidates were able to explain that the percentage increase in sales volume was equal to the percentage increase in variable costs, given that variable cost per unit had not changed.

The second sub-task asked for an explanation of factors that should be considered before using the what-if analysis to decide which option to implement. This tested core activity B. Many candidates submitted answers that were much wider and less specific than required by the task and, while some credit was given for this, only answers that addressed the task specifically scored at a level 2 or 3.

The third sub-task asked for suggestions of four KPIs that were appropriate to monitor the performance of the new tree supplier. It also asked for an explanation of how each KPI would be measured and why it would be appropriate. This tested core activity C. This sub-task was not answered as well as expected. The most common defect in candidates' answers was the lack of any attempt to explain how to measure the KPIs, with many candidates simply ignoring this. A significant number of candidates suggested KPIs that were general to the company's operations as detailed in the pre-seen but had little or no significance in the context of the new product and new supplier. Future candidates should know that KPIs need to be SMART and be specific to the scenario given in the case study itself.

Task 2

The first sub-task asked for an explanation of how each of the expenditure items in Table 1 would be initially recorded and subsequently measured in the company's financial statements for the year ending 31 December 2024. This tested core activity D. There were some exceptionally good answers to this sub-task from candidates who were clearly well prepared for a question based around IAS 16: Property plant and equipment. This was good to see. Candidates that scored at level 1 or a low level 2 did so because of a lack of technical understanding or because they may have stated the correct answer but without a proper explanation. Future candidates should be aware that simply identifying the items that can be capitalised or not is not a sufficient explanation. Answers should detail why items should be treated as capital or revenue expenditure with suitable reference to the appropriate accounting standard. There was some confusion over whether a warehouse should be depreciated over 5 or 15 years.

The second sub-task asked for an explanation of the actions that could be taken by the company to manage its working capital in order to avoid a cash deficit arising. It also asked for an explanation of the potential implications of these actions. This tested core activity F. This was answered well by most. Those candidates who did not achieve a level 2 or level 3 score often demonstrated good technical understanding but failed to apply it to the task. Often candidates failed to suggest any actions that would either increase trade payables or reduce trade receivables and inventory. Even though many candidates correctly explained calculations, possible reasons for changes since year-end, and the length of time the company had traded with suppliers (demonstrating technical understanding and knowledge of the business), they did not address the task given. Future candidates must take the time to read the exact wording of the task and not race to write everything that they know about a subject as correct answers to a different task earn minimal credit.

Task 3

The first sub-task asked for an explanation of the feasible region of Graph 1, how to use the graph to determine the optimal production plan and what that optimal production plan was. It also asked for an explanation of the financial and non-financial factors to be considered before proceeding with the production plan. This tested core activity E. This type of task has been given at OCS many times and it was gratifying that a significant number of candidates were awarded a level 3 mark for the explanation of the graph. It is understood that trying to determine the optimal production plan on a computer screen is difficult and full credit was given for answers that arrived at a different answer to the model solution, provided the explanation was clear. However, there were a number of candidates that did not seem to recognise the topic area at all and who were therefore unable to demonstrate any understanding. Some candidates described the graph as a break-even chart and others a linear regression graph. Other candidates just left this section blank, all of which scored zero. The candidates who did not recognise the graph was a linear programming graph understandably failed to identify the factors that should be considered before undertaking to produce the optimal solution quantities. As with task 1, marks were not awarded for generic thoughts about the company's production process. The marking team were specifically looking for an understanding that the binding constraints would be relieved if extra resource could be sourced at a cost lower than the usual cost plus the shadow price and that the solution that generated the highest contribution in the short term might be secondary to customer preferences.

The second sub-task asked for an explanation of how an activity based costing (ABC) approach would change how the company absorbs fixed production overheads and the impact that this would have on the costings for K-Jump saddles compared to general-purpose saddles. It also asked for illustration of the explanation with reference to the information in Schedule 1. This tested core activity A. There were a lot of rote learned answers submitted for the first part of this sub-task and, as most of these were relevant to the sub-task, scores were generally high for this part. However, the second part of this sub-task required application of the information in the task exhibit to gain marks and there were very few answers awarded a level 3. Future candidates should be aware that they will be asked to apply their knowledge to different scenarios.

Task 4

The first sub-task asked for an explanation of what each of the variances in Table 1 meant and the likely reasons for their occurrence. This tested core activity C. This was generally answered very well, with many high level 2 and level 3 answers. Many candidates included a correct meaning for each of the variances, correctly attributed the events in the notes given in the exhibit to the correct variances and added reasonable explanations as to why they were the cause of the variances. In short, these answers demonstrated both technical understanding and the ability to apply that understanding to the events presented in the case scenario. The minority of candidates who did not score above a level 1 for this sub-task were usually the same candidates who failed to score more than 25% on the OCS examination overall.

The second sub-task asked for an explanation of how a responsibility accounting system could be implemented in the Production Facility. It also asked for illustration of the explanation with reference to the variances shown in Table 1. This tested core activity B. This sub-task was answered poorly by most candidates. Common errors included not referencing the variances in any part of the answer and explaining approaches to budgeting that were wholly or largely irrelevant (ABB, flexed budgeting, beyond budgeting, incremental budgeting and so on). Future candidates should be aware that they must answer all parts of the task to achieve a level 3.

The third sub-task asked for an explanation of how the information shown in Table 2 would be used to decide which of the bridle and rein models the company should buy-in and which the company should make in-house, assuming that the company wanted to utilise all of the available cutting machine hours. This tested core activity E. This was badly answered by most candidates. The vast majority of candidates did not progress beyond comparing the total production cost to the buy-in purchase price and stating that the company should buy-in the product if it were less expensive to do so. This approach did not score above a level 1. Even candidates who did demonstrate a good understanding of the make or buy decision and explained the process accurately, often failed to gain a level 3 mark because they did not use the numbers given in the table in their explanation.

Variant 5

Task 1

The first sub-task asked for an explanation of what Graph 1 showed. It also asked for an explanation of how to determine a trend line and seasonal variations based on a 4-point moving average (using all of the data in the graph) and the additive model. This tested core activity B. Most candidates could explain that the graph showed that sales had increased over the 3-year period and there were some significant peaks in quarter 2 and the reason for these peaks. However, few candidates commented that the rate of growth seemed to be slowing or that sales in the most recent quarter 4 had not declined unlike the same quarters in previous years. Also, although most candidates demonstrated an understanding of 4-point moving averages, very few went on to explain how the linear trend line or seasonal variations could then be determined. This meant that the majority of answers could not achieve a level 3 score as they were incomplete.

The second sub-task asked for an explanation of the difficulties of using this trend line and these seasonal variations to create a forecast of sales volumes in Geeland for the quarter October to December 2024. This tested core activity B. Many candidates' answers lacked both breadth and depth and were frequently limited to the single statement that the forecast would be based on historical data. These were too brief an answer to score any higher than level 1. It was expected, for example, that candidates would comment on the dangers of using a trend line that could be too optimistic because of a decline in recent sales growth rates, that the latest data was back in quarter 1 2024 and that Geeland was a totally new market for Kanann.

The third sub-task asked for an explanation of the working capital approaches adopted by each of the potential customers and how this would influence how Kanann determined trading terms with each of them. This tested core activity F. There were many disappointing answers, with the majority of candidates not specifically answering the task set. Most candidates just compared working capital days, revenues and cash balances for each potential customer without then going on to explain how this may influence Kanann's trading terms. More discussion in particular was needed on how the data provided for each of the two potential customers would influence both the amount of credit and the credit period that Kanann should allow with each customer, which would be key elements in determining trading terms. Some candidates also treated the two companies as potential suppliers to Kanann, leading to confusing answers. Few candidates achieved higher than a mid level 2 score here.

Task 2

The first sub-task asked for an explanation of the direct and indirect costs associated with a specific video. It also asked for an explanation of the potential problems of determining the total cost for each specific video. This tested core activity A. This was expected to be a relatively straight-forward task for candidates. Candidates were told how the six videos would be created and made available for viewers and all they were expected to do was to explain which of the cost elements detailed would be either a direct or indirect cost for a specific video. Unfortunately, too many candidates chose to discuss the difference between costing digital and physical products;

answers that seemed to allude to questions asked in previous Operational Case Study examinations. The most common error was the total misallocation of costs and it was disappointing that so many candidates did not understand the difference between a direct and indirect cost.

The second sub-task asked for an explanation of how the decision about which promotional campaign to choose would be made if the SMT was either risk seeking, risk neutral or risk averse, in each case, giving the decision that would be taken. This tested core activity E. This was generally very well answered, with many candidates earning the full marks that were available. Good technical knowledge was generally demonstrated in candidates' answers, with many level 3 scores.

The third sub-task asked for an explanation of any limitations associated with the information used to complete Table 1 and any limitations of using the three decision approaches. This tested core activity E. Candidates generally answered this sub-task reasonably well, with most at mid to higher level 2. Weaker answers only referred to limitations of the statistical techniques in general terms and did not use the data provided in the table and so rarely scored higher than a level 1 mark. Future candidates must remember that the exhibit information is provided in order to facilitate applied answers and should be used.

Task 3

The first sub-task asked for an explanation of Chart 1 and the information that it gave the company. This tested core activity E. Candidate answers were often too brief to score at higher level 2 or level 3. It should have been clear to candidates from the 28% weighting allocated to this sub-task, that a reasonably full answer was required. It was obvious that some candidates did not understand what the Y-axis measured and, as a consequence, their answers were either inaccurate or failed to explain most of the information in the chart.

The second sub-task asked for an explanation of the benefits and limitations of the break-even analysis, with reference to the uncertainty surrounding the mix of sales and level of discount. This tested core activity E. This was usually reasonably well attempted, with most candidates able to provide at least one relevant benefit (usually an aid to budget planning), and one relevant drawback (usually the difficulty in forecasting sales volumes, prices and discounts). Level 3 answers were explained in good depth and well applied to the scenario given. Level 3 answers usually explained that sales would probably never be in the order of their contribution to sales ratios, as was inferred by the staggered line on the chart.

The third sub-task asked for an explanation of how the right-of-use asset associated with the leased fork-lift truck detailed in Table 1 would be initially recorded and subsequently measured in Kanann's financial statements for the year ending 31 December 2024. This tested core activity D. Candidates' answers were mixed. Although it was necessary to explain how the lease liability would be determined, since this was part of the right-of-use asset measurement, many candidates also explained how the lease liability would then be subsequently treated in Kanann's financial statements. This additional explanation earned no marks as it did not address the task given. Even when candidates did focus on measurement of the right-of-use asset, few could correctly explain the inclusion of the

option to purchase in 5-years' time. Also, very few candidates correctly identified the depreciation period of 10 years and only 4 months in 2024 based on the lease commencement date. Consequently, marks were often limited to a low level 2.

The fourth sub-task asked for an explanation of how the accessories inventory would be measured in Kanann's financial statements, with reference to all of the information in Table 2 and to the measurement rule in the relevant financial reporting standard. This tested core activity D. Whilst most candidates recognised that the inventory should be valued at the lower of cost and net realisable value, many did not clearly explain how these two amounts would be arrived at using the information provided. While calculations are not required in the OCS examination, candidates should use the numbers provided to explain principles and to apply their knowledge.

Task 4

The first sub-task asked for an explanation of what the sales variances in Table 1 meant and possible reasons why they had arisen. This tested core activity C. There were four types of sales variances in the table, with each variance spread across four products. There were 12 marks available, so it was expected that candidates would provide answers to a reasonable depth. This has been a popular question in the past and most candidates were able to achieve a good level 2 mark. In particular, the explanations of the sales price and sales volume variances showed sound knowledge in many answers.

The second sub-task asked for suggestions of three key performance indicators (KPIs) that could be used to monitor the performance of Ben Harris, Geeland Sales Manager. It also asked for explanation of how each KPI would be measured and why it would be appropriate. This tested core activity C. This was a comfortable question for most candidates because they were told that Ben was responsible for signing up new retailers, generating sales from those retailers and retaining retailers. Accordingly, most candidate answers based the KPIs on these three responsibilities. Like with many KPI tasks, weaker answers did not explain how the KPIs would be measured.

The third sub-task asked for an explanation of whether or not the event on 28 January would affect the financial statements for the year ended 31 December 2024 and how the financial statements would be affected. This tested core activity D. Most candidates were able to make a good attempt at this question and gained a level 3 mark. However, a minority of candidates did not apply the standard's rules appropriately, sometimes arguing that the event would both affect the financial statement and not affect the financial statements. Even though many candidates correctly reasoned that the event was a non-adjusting event, they stated that there should still be disclosure, overlooking the fact that K\$10,000 was not material for Kanann.

Variant 6

Task 1

The first sub-task asked for an explanation of three areas of the CGMA cost transformation model and how these applied and could be applied to the business. This tested core activity A. Candidates needed to use their knowledge of the pre-seen material to draw on examples of how the model applied currently in Kannan, or to make their own suggestions as to how the three elements of the model could be applied in the future. In the main, this was well answered. Weaker candidates believed that 'managing the risk inherent in driving cost competitiveness' was all about setting the lowest selling price or about more widespread mitigation of risk throughout Kannan using a risk register. Good answers explained the link between reducing cost and the impact on quality and used good examples to apply this link to the case scenario. Most candidates were able to explain the second element, 'understanding cost drivers and cost accounting systems and processes' and applied it well to Kannan. The final element 'incorporating sustainability to optimise profits' was also very well done. Many candidates scored at mid level 2 and above.

The second sub-task asked for an explanation of the benefits and drawbacks of taking a more aggressive approach to the management of the company's inventory levels. It also asked for an explanation of whether adopting Just-In-Time (JIT) purchasing would be a suitable way for the company to achieve this. This tested core activity F. This task was well answered by most candidates. The benefits and drawbacks were well applied using the information provided and many scored a level 3 mark. Most candidates were able to distinguish JIT purchasing from JIT production, which was good to see. However, most answers were based solely on the information in the reference material and stopped short of considering wider issues. As a result, the importance of the locality of suppliers was explained very well but the need for Kannan to forecast demand and production more accurately, was barely mentioned. Weaker answers confused aggressive and conservative approaches to inventory or focused on other aspects of working capital rather than just on inventory.

Task 2

The first sub-task asked for an explanation, with appropriate justification, of how an industrial sewing machine would be reflected in the company's financial statements, assuming that the SMT decided to sell the asset at the meeting on 1 December. This tested core activity D. The best candidate answers correctly explained and applied the criteria necessary for an asset to be classified as an asset held for sale and then explained the accounting treatment for the sewing machine. The majority of candidates were able to list most of the criteria for an asset held for sale, and good answers applied each criterion to justify why the sewing machine could be classified as an asset held for sale. The accounting treatment of the asset was less well explained and applied. Few answers stated or explained the date the machine would stop being depreciated or how much depreciation would be charged up to the point of reclassification. Few candidate answers explained the potential impact on profit if the fair value less costs to sell were less than the carrying amount. Because of these gaps, answers to this part of the sub-task rarely achieved a level 3 mark.

The second sub-task asked for an explanation of how the disposal of a warehouse building would affect the amount of capital tax payable by the company for the year ending 31 December 2024. This tested core activity D. This sub-task was poorly answered, with many candidates only scoring a level 1 mark. The most common error was attempting to explain the accounting treatment of a disposal and not the tax treatment. This shows a fundamental lack of technical knowledge and understanding on capital taxes.

The third sub-task asked for an explanation of how an activity based budgeting (ABB) approach could be applied in determining a budget for maintenance team employee costs. This tested core activity B. This sub-task was answered poorly, with many candidates failing to differentiate between ABB and activity based costing (ABC). Where an answer was clearly focused on ABC, it did not score higher than a level 1.

Task 3

The first sub-task asked for an explanation of the figures in the what-if analysis in Table 1 and what they indicated about the impact on budgeted profit of changes in sales volumes, average variable cost per unit and average selling prices. This tested core activity B. Some candidates struggled to add value to the information given in this task and many just re-stated what was in the table (this is describing and not explaining). The starting point should have been the current budget, but this was completely ignored in many cases. Good answers responded to John or Ella and provided justification to their responses using the information in the table. These answers (typically scoring at level 3) also demonstrated an understanding of how the figures had been calculated which enhanced and added value to their explanations.

The second sub-task asked for an explanation of how the expected values in Table 3 had been calculated and what the three measures in the table meant. This tested core activity E. Candidates did well when explaining the standard deviation and coefficient of variation, but answers in relation to expected value (EV) lacked clarity and depth. It was expected that candidates would show how the probabilities provided would have been used to calculate a joint probability, but most explanations of the calculation of EV fell far short of this. Most candidates seemed to know that EV was a weighted average and little else.

The third sub-task asked for an explanation of how the attitude to risk attitude of the decision maker would impact which average selling price would be chosen. This tested core activity E. Most candidates were able to explain risk neutral and risk seeking attitudes. However, when explaining a risk averse attitude, many candidates confused uncertainty and risk. A high proportion of answers referred to maximin or minimax regret for a risk averse decision maker as opposed to choosing the lowest coefficient of variation.

The fourth sub-task asked for an explanation of the limitations of the what-if information included in Table 1 and any drawbacks of using expected values to make this decision. This tested core activity E. Most answers included some generic weaknesses, but those answers that scored at level 3 applied the limitations to the information given in the task.

Task 4

The first sub-task asked for an explanation of what each of the variances in Table 1 meant and possible reasons for their occurrence. This tested core activity C. Candidates seemed to struggle to interpret this task and future candidates should be aware that merely stating that a favourable variance is a good thing and an adverse variance a bad thing is not an explanation of the meaning of a specific variance. Candidates' explanations of the possible reasons for the variances were generally much better than the explanation of the meaning. However, less good answers attributed the information in the notes as the cause of all the variances. Using every event as a possible reason for every variance is an approach that demonstrates a lack of understanding. To achieve a level 3 score, an answer should explain why the reason identified caused the variance (for example, a bonus scheme would incentivise employees causing them to work faster than usual).

The second sub-task asked for an explanation of the benefits of splitting variances into planning and operational variances, with reference to the fixed production overhead variances. This tested core activity C. Weaker answers confused planning and operational variances and many candidates seemed to think that planning variances were only caused by errors in the budgets, rather than unexpected externalities. Most candidates struggled to apply the concept to the fixed overhead variances. Good answers discussed the controllable and uncontrollable elements of the variances and explained how these variances related to revised and original standards.

The third sub-task asked for suggestions of three KPIs that were appropriate to monitor the performance of Jack Newman, Production Manager, with respect to his management of employees. It also asked for an explanation of how each KPI would be measured and why it would be appropriate. This tested core activity C. This sub-task was not generally well answered, as many candidates failed to focus their answers on the management of employees. As with the other variants for the case study, most candidates did not explain how to measure their KPI and so could not be awarded a level 3 mark.

Tips for future candidates

There are several key points to take into account when preparing for future Operational Level Case Study examinations. These points are the same as in previous reports and are:

- Key to achieving a score at level 2 and above is to ensure that:
 - You have the technical knowledge and understanding of all of topics included in each of the core activities. It is not sufficient to rely on the fact that you remember it from the objective test exams or from your FLP studies, because the chances are you won't. You need to revise technical material: if you don't have the knowledge, you can't score well.
 - You are able to apply your technical knowledge and understanding within the case study context. Simply reproducing rote-learned answers or pure knowledge of a topic area will score very few, if any, marks. Similarly, taking a non-targeted approach to an issue and commenting on everything that you know about it from a theoretical point of view will score few marks.
 - You are able to explain with clarity and comprehensively, rather than making unsupported statements. Writing comments such as, "this improves decision making", "this graph is essential" or "planning is enhanced" is not enough to gain any marks. Candidates must explain "how" and "why" this is the case. Explanations can quite often be improved by adding "because of" at the end of a sentence. Explanations should also utilise the information given to you within the case study itself, especially financial information. For example, reasons for variances are often given to you in the unseen information, the skill is to pick this out and use it.
- To help you achieve this, you need to:
 - Study the pre-seen material in depth. Ensure that you are very familiar with the business, especially the financial information, before the exam as this will help you with applying your knowledge and will save you time. Similarly, an awareness of the industry that the business is in will help you to think of the wider issues that might impact on decisions that you could be asked to comment on.
 - Practise, practise, practise past OCS exam tasks. Practising past tasks and then checking against the published answers will help you to understand what the examiner is looking for.
- On the day:
 - It is important to take time to plan your answer so that you are able to apply your knowledge to the specifics of the case. I suggest that for certain tasks you plan your answers in the answer screen itself. For example, if you are asked for the potential benefits and problems of activity based costing, I suggest that you first note down headings for benefits and problems. Under each heading, list your benefits and problems; these will become your sub-headings. Then you can

write a short paragraph under each sub-heading. This will allow you time to think about all of the points that you want to make and will help to give your answer a clear format. Ultimately, it should save you time.

- Please take care over how your answer looks. Some answers are very difficult to read because of poor spelling and grammar. Whilst this examination is not a test of English, it is important that answers are presented well so that markers can see that you have demonstrated clear understanding of the issues.

Operational Level Case Study May & August 2024

Marking Guidance - Variant 1

About this marking scheme

This marking scheme has been prepared for the 2019 CGMA Professional Qualification Operational Case Study [May & August 2024].

The indicative answers will show the expected or most orthodox approach; however, the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

General marking guidance is given below, and markers are subject to extensive training, standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

Care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded, and full marks should be awarded when all level descriptor criteria are met.

- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks. Markers should mark according to the marking scheme and not their perception of where the passing standard may lie. Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. Read the candidate's response in full

2. Select the level

- For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
- The response does not need to meet all the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
- If the work fits more than one level, judge which one provides the best match.
- If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.

3. Select a mark within the level

- Once you have selected the level, you will need to choose the mark to apply.
- A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
- If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each sub-task

Sub-task	Core Activity		Sub-task weighting (% section time)
Section 1			
(a)	E	Prepare information to support short-term decision making	28%
(b)	E	Prepare information to support short-term decision making	20%
(c)	F	Prepare information to manage working capital	24%
(d)	F	Prepare information to manage working capital	28%
Section 2			
(a)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	48%
(b)	A	Prepare costing information for different purposes to meet the needs of management	32%
(c)	A	Prepare costing information for different purposes to meet the needs of management	20%
Section 3			
(a)	B	Prepare budget information and assess its use for planning and control purposes	32%
(b)	B	Prepare budget information and assess its use for planning and control purposes	32%
(c)	C	Analyse performance using financial and non-financial information	36%
Section 4			
(a)	C	Analyse performance using financial and non-financial information	40%
(b)	B	Prepare budget information and assess its use for planning and control purposes	36%
(c)	E	Prepare information to support short-term decision making	24%

SECTION 1			
Task (a): Explain how the decision tree should be used to financially evaluate which option should be selected to complete the suitability testing on the vegan leather.			
Trait			
Decision tree	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how the decision tree should be used. The explanation lacks clarity, depth and reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of how the decision tree should be used. The explanation may lack some clarity, depth and/or reference to the information given.	3 – 5
	Level 3	Demonstrates a good understanding of how the decision tree should be used. The explanation is mostly clear, comprehensive and referenced to the information given.	6 – 7
Task (b): Explain the limitations of using the decision tree for this decision.			
Limitations	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the limitations of using the decision tree. The explanation lacks clarity, depth and application to the scenario/reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the limitations of using the decision tree. The explanation may lack some clarity, depth and/or application to the scenario/reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the limitations of using the decision tree. The explanation is mostly clear, comprehensive and there is application to the scenario/reference to the information given.	5

SECTION 1 continued			
Task (c): Explain the appropriateness of the overdraft and the bank loan as methods to provide additional liquidity, if required, in the development phase of the project.			
Trait			
Funding methods	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the appropriateness of using the overdraft and the bank loan as funding methods. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the appropriateness of using the overdraft and the bank loan as funding methods. The explanation may lack some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of the appropriateness of using the overdraft and the bank loan as funding methods. The explanation is mostly clear, comprehensive and there is application to the scenario.	5 – 6
Task (d): Explain what financial and non-financial factors should be considered before we delay payments to our suppliers.			
Trait			
Delay payments	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the financial and non-financial factors which should be considered. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the financial and non-financial factors which should be considered. The explanation may lack some clarity, depth and/or application to the scenario.	3 – 5
	Level 3	Demonstrates a good understanding of the financial and non-financial factors which should be considered. The explanation is mostly clear, comprehensive and there is application to the scenario.	6 – 7

SECTION 2			
Task (a): Explain how both the sale of the IXO G1 and the purchase of the IXO G3 will be recorded in the financial statements for the year ending 31 December 2024.			
Trait			
Sale of NCA	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how the asset sale should be recorded in the financial statements. The explanation lacks clarity, depth and reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable technical understanding of how the asset sale should be recorded in the financial statements. The explanation may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good technical understanding of how the asset sale should be recorded in the financial statements. The explanation is mostly clear, comprehensive and referenced to the information given.	5 – 6
Purchase of NCA	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how the asset purchase should be recorded in the financial statements. The explanation lacks clarity, depth and reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable technical understanding of how the asset purchase should be recorded in the financial statements. The explanation may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of how the asset purchase should be recorded in the financial statements. The explanation is mostly clear, comprehensive and referenced to the information given.	5 – 6

SECTION 2 (continued)			
Task (b): Explain how information prepared by a management accountant would support the needs of management for the vegan saddle project.			
Trait			
Management accountant	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how a management accountant could support the vegan saddle project. The explanation lacks clarity, depth and/or application to the scenario.	1 – 3
	Level 2	Demonstrates a reasonable understanding of how a management accountant could support the vegan saddle project. The explanation may lack some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Demonstrates a good understanding of how a management accountant could support the vegan saddle project. The explanation is mostly clear, comprehensive and applied to the scenario.	7 – 8

SECTION 2 (continued)			
Task (c): Explain the principles upon which we should base short-term decisions and whether changing to a marginal costing system would help us to make better short-term decisions.			
Trait			
Marginal costing	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the principles and whether changing to a marginal costing system would help Kanann make better short-term decisions. The explanation lacks clarity, depth and/or application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the principles and whether changing to a marginal costing system would help Kanann make better short-term decisions. The explanation may lack some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of the principles and whether changing to a marginal costing system would help Kanann make better short-term decisions. The explanation is mostly clear, comprehensive and applied to the scenario.	5

SECTION 3			
Task (a): Explain how beyond budgeting differs from our current system of incremental budgeting and whether it would be beneficial for Kanann to use beyond budgeting across the business.			
Trait			
Beyond budgeting	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how beyond budgeting differs from incremental budgeting. The explanation lacks clarity, depth and/or application to the scenario.	1
	Level 2	Demonstrates a reasonable understanding of how beyond budgeting differs from incremental budgeting. The explanation may lack some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Demonstrates a good understanding of how beyond budgeting differs from incremental budgeting. The explanation is mostly clear, comprehensive and applied to the scenario.	4
Beneficial	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of whether it would be beneficial to use beyond budgeting. The explanation lacks clarity, depth and/or application to the scenario.	1
	Level 2	Demonstrates a reasonable understanding of whether it would be beneficial to use beyond budgeting. The explanation may lack some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Demonstrates a good understanding of whether it would be beneficial to use beyond budgeting. The explanation is mostly clear, comprehensive and applied to the scenario.	4

SECTION 3 (continued)			
Task (b): Explain the impacts imposing a budget could have on team managers.			
Trait			
Imposing a budget	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the impact imposing a budget could have. The explanation lacks clarity, depth and/or application to the scenario.	1 – 3
	Level 2	Demonstrates a reasonable understanding of the impact imposing a budget could have. The explanation may lack some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Demonstrates a good understanding of the impact imposing a budget could have. The explanation is mostly clear, comprehensive and applied to the scenario.	7 – 8
Task (c): Suggest three KPIs we can use to monitor product quality for the vegan saddles. For each KPI, please explain how it can be measured and why it would be appropriate.			
Trait			
KPIs	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies at least one KPI which is relevant for monitoring product quality. The explanation of measurement and appropriateness lacks clarity, depth and/or application to the scenario.	1 – 3
	Level 2	Identifies at least two KPIs which are relevant for monitoring product quality. The explanation of measurement and appropriateness may lack some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Identifies three KPIs which are relevant for monitoring product quality. The explanation of measurement and appropriateness is mostly clear, comprehensive and applied to the scenario.	7 – 9

SECTION 4			
Task (a): Explain issues we should consider in using the Comet as a basis for creating a standard cost card for vegan saddles to allow us to report appropriate variances. Please focus on material usage, labour efficiency and machinery efficiency and capacity.			
Trait			
Variances	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the issues to consider when formulating a standard cost card to allow appropriate variances to be reported. The explanation lacks clarity, depth and/or application to the scenario/reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of the issues to consider when formulating a standard cost card to allow appropriate variances to be reported. The explanation may lack some clarity, depth and/or application to the scenario/reference to the information given.	4 – 7
	Level 3	Demonstrates a good understanding of the issues to consider when formulating a standard cost card to allow appropriate variances to be reported. The explanation is mostly clear, comprehensive and applied to the scenario/referenced to the information given.	8 – 10

SECTION 4 (continued)			
Task (b): Explain how and why our standards and budgets should be revised, given the expected rising inflation, to ensure their relevance for planning and control purposes at our monthly meetings.			
Trait			
Revised budget	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how and why the standards and budgets should be revised for planning and control purposes. The explanation lacks clarity, depth and/or application to the scenario.	1 – 3
	Level 2	Demonstrates a reasonable understanding of how and why the standards and budgets should be revised for planning and control purposes. The explanation may lack some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Demonstrates a good understanding of how and why the standards and budgets should be revised for planning and control purposes. The explanation is mostly clear, comprehensive and applied to the scenario.	7 – 9

SECTION 4 (continued)			
Task (c): Explain how inflation and the purchase of new machinery will impact operational gearing, planned break-even point and profits.			
Trait			
Impact	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how operational gearing, planned break-even and profits will be impacted by inflation and the purchase of new machinery. The explanation lacks clarity, depth and/or application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of how operational gearing, planned break-even and profits will be impacted by inflation and the purchase of new machinery. The explanation lacks some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of how operational gearing, planned break-even and profits will be impacted by inflation and the purchase of new machinery. The explanation is mostly clear, comprehensive and applied to the scenario.	5 – 6

Operational Level Case Study May & August 2024

Marking Guidance - Variant 2

About this marking scheme

This marking scheme has been prepared for the 2019 CGMA Professional Qualification Operational Case Study [May & August 2024].

The indicative answers will show the expected or most orthodox approach; however, the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

General marking guidance is given below, and markers are subject to extensive training, standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

Care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded, and full marks should be awarded when all level descriptor criteria are met.

- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks. Markers should mark according to the marking scheme and not their perception of where the passing standard may lie. Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. Read the candidate's response in full

2. Select the level

- For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
- The response does not need to meet all of the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
- If the work fits more than one level, judge which one provides the best match.
- If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.

3. Select a mark within the level

- Once you have selected the level, you will need to choose the mark to apply.
- A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
- If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each sub-task

Sub-task	Core Activity		Sub-task weighting (% section time)
Section 1			
(a)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	20%
(b)	E	Prepare information to support short-term decision making	48%
(c)	F	Prepare information to manage working capital	32%
Section 2			
(a)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	36%
(b)	F	Prepare information to manage working capital	20%
(c)	B	Prepare budget information and assess its use for planning and control purposes	44%
Section 3			
(a)	C	Analyse performance using financial and non-financial information	44%
(b)	C	Analyse performance using financial and non-financial information	36%
(c)	E	Prepare information to support short-term decision making	20%
Section 4			
(a)	A	Prepare costing information for different purposes to meet the needs of management	28%
(b)	A	Prepare costing information for different purposes to meet the needs of management	32%
(c)	B	Prepare budget information and assess its use for planning and control purposes	40%

SECTION 1			
Task (a): Explain how each of the costs shown in Table 1 should be recognised in the financial statements for the year ending 31 December 2024 if we buy this machine from Bard.			
Trait			
IAS 16	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how the costs should be recognised in the financial statements. The explanation lacks clarity, depth and/or reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable technical understanding of how the costs should be recognised in the financial statements. The explanation may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good technical understanding of how the costs should be recognised in the financial statements. The explanation is mostly clear, comprehensive and refers to the information given.	5

SECTION 1 continued			
Task (b): Explain the additional financial and the non-financial information we should consider when deciding whether to produce or buy-in the buckles.			
Financial Information	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the financial information to consider. The explanation lacks clarity, depth and/or reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the financial information to consider. The explanation may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the financial information to consider. The explanation is mostly clear, comprehensive and referenced to the information given.	5 – 6
Non-financial information	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the non-financial information to consider. The explanation lacks clarity, depth and/or reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the non-financial information to consider. The explanation may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the non-financial information to consider. The explanation is mostly clear, comprehensive and referenced to the information given.	5 – 6

SECTION 1 continued			
Task (c): Explain how introducing an age analysis of outstanding trade receivables may help us to monitor trade receivables and improve collections from what were Bard's customers, with reference to the information in Table 3.			
Trait			
Age analysis	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how introducing an age analysis of trade receivables could help monitor and improve collections. The explanation lacks clarity, depth and/or reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of how introducing an age analysis of trade receivables could help monitor and improve collections. The explanation may lack some clarity, depth and/or reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of how introducing an age analysis of trade receivables could help monitor and improve collections. The explanation is mostly clear, comprehensive and referenced to the information given.	7 – 8

SECTION 2			
Task (a): Explain the value at which the inventory in Table 1 would be stated if it was measured in accordance with IAS 2.			
Trait			
IAS 2	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how inventory should be measured in financial statements. The explanation lacks clarity, depth and/or reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable technical understanding of how inventory should be measured in financial statements. The explanation may lack some clarity, depth and/or reference to the information given.	4 – 6
	Level 3	Demonstrates a good technical understanding of how inventory should be measured in financial statements. The explanation is mostly clear, comprehensive and refers to the information given.	7 – 9
Task (b): Explain the appropriateness of each of the two short-term investment methods, a certificate of deposit and a bank deposit account, for the deposit of surplus funds.			
Trait			
Short-term investments	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the appropriateness of the two short-term investments. The explanation lacks clarity, depth and/or reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the appropriateness of the two short-term investments. The explanation may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the appropriateness of the two short-term investments. The explanation is mostly clear, comprehensive and refers to the information given.	5

SECTION 2 continued			
Task (c): Explain our current system of incremental budgeting and how changing to rolling budgets for bridle production would improve our planning, including planning for resource acquisition and utilisation.			
Trait			
Rolling budgets	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the current system and how rolling budgets may improve planning, resource acquisition and resource utilisation. The explanation lacks clarity, depth and/or reference to the scenario.	1 – 4
	Level 2	Demonstrates a reasonable understanding of the current system and how rolling budgets may improve planning, resource acquisition and resource utilisation. The explanation lacks some clarity, depth and/or reference to the scenario.	5 – 8
	Level 3	Demonstrates a good understanding of the current system and how rolling budgets may improve planning, resource acquisition and resource utilisation. The explanation is mostly clear, comprehensive and refers to the scenario.	9 – 11

SECTION 3			
Task (a): Explain how the labour variances for bridle production have been calculated, what they mean and possible reasons why they have occurred. Please also explain what the fixed production overhead variances mean and how bridle production will have impacted these variances.			
Trait			
Variances	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the variances. The explanation lacks clarity, depth and/or reference to the information given.	1 – 4
	Level 2	Demonstrates a reasonable understanding of the variances. The explanation may lack some clarity, depth and/or reference to the information given.	5 – 8
	Level 3	Demonstrates a good understanding of the variances. The explanation is mostly clear, comprehensive and references the information given.	9 – 11

SECTION 3 continued			
Task (b): Suggest one KPI for each of labour efficiency, machine utilisation and product quality. For each of the KPIs, please explain how it would be measured and why it would be appropriate.			
Trait			
Labour efficiency	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies a KPI which is relevant for monitoring labour efficiency, but the measurement method and appropriateness explanation is missing or not clear.	1
	Level 2	Identifies a KPI which is relevant for monitoring labour efficiency, but the measurement method and/or appropriateness explanation lacks some clarity and depth.	2
	Level 3	Identifies a KPI which is relevant for monitoring labour efficiency and the measurement method and appropriateness explanation is clear and comprehensive.	3
Machine utilisation	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies a KPI which is relevant for monitoring machine utilisation, but the measurement method and appropriateness explanation is missing or not clear.	1
	Level 2	Identifies a KPI which is relevant for monitoring machine utilisation, but the measurement method and/or appropriateness explanation lacks some clarity and depth.	2
	Level 3	Identifies a KPI which is relevant for monitoring machine utilisation and the measurement method and appropriateness explanation is clear and comprehensive.	3
Product quality	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies a KPI which is relevant for monitoring product quality, but the measurement method and appropriateness explanation is missing or not clear.	1
	Level 2	Identifies a KPI which is relevant for monitoring product quality, but the measurement method and/or appropriateness explanation lacks some clarity and depth.	2
	Level 3	Identifies a KPI which is relevant for monitoring product quality and the measurement method and appropriateness explanation is clear and comprehensive.	3

SECTION 3 (continued)			
Task (c): Explain the part ethics should play when choosing a supplier.			
Trait			
Ethics	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the part ethics should play when choosing a supplier. The explanation lacks clarity, depth and/or application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the part ethics should play when choosing a supplier. The explanation may lack some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of the part ethics should play when choosing a supplier. The explanation is mostly clear, comprehensive and applied to the scenario.	5

SECTION 4			
Task (a): Explain our current cost system and the problems that arise from using it.			
Trait			
Current costing system	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the current cost system and the problems of using it. The explanation lacks clarity, depth and/or application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the current cost system and the problems of using it. The explanation may lack some clarity, depth and/or application to the scenario.	3 – 5
	Level 3	Demonstrates a good understanding of the current cost system and the problems of using it. The explanation is mostly clear, comprehensive and applied to the scenario.	6 – 7
Task (b): Explain the benefits of setting up cost centres with individual absorption rates and the additional benefits of activity-based costing.			
Trait			
Cost centres and ABC	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the benefits of setting up cost centres and the additional benefits of activity-based costing. The explanation lacks clarity, depth and/or application to the scenario.	1 – 3
	Level 2	Demonstrates a reasonable understanding of the benefits of setting up cost centres and the additional benefits of activity-based costing. The explanation may lack some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Demonstrates a good understanding of the benefits of setting up cost centres and the additional benefits of activity-based costing. The explanation is mostly clear, comprehensive and applied to the scenario.	7 – 8

SECTION 4 continued			
Task (c): Explain the data in the graph and the difficulties we would face in applying time series analysis and four-point centered moving averages to this data to forecast quarterly sales volumes for bridles.			
Trait			
How to forecast sales	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the data in the graph and how moving averages and time series could be used to forecast sales. The explanation lacks clarity, depth and/or application to the scenario/reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the data in the graph and how moving averages and time series could be used to forecast sales. The explanation may lack some clarity, depth and/or application to the scenario/reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the data in the graph and how moving averages and time series could be used to forecast sales. The explanation is mostly clear, comprehensive and is applied to the scenario and referenced to the information given.	5 – 6
Difficulties	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the difficulties. The explanation lacks clarity, depth and/or application to the scenario.	1
	Level 2	Demonstrates a reasonable understanding of the difficulties. The explanation may lack some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Demonstrates a good understanding of the difficulties. The explanation is mostly clear, comprehensive and applied to the scenario.	4

Operational Level Case Study May & August 2024

Marking Guidance - Variant 3

About this marking scheme

This marking scheme has been prepared for the 2019 CGMA Professional Qualification Operational Case Study [May 2024 & August 2024].

The indicative answers will show the expected or most orthodox approach; however, the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

General marking guidance is given below, and markers are subject to extensive training, standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

Care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded, and full marks should be awarded when all level descriptor criteria are met.

- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks. Markers should mark according to the marking scheme and not their perception of where the passing standard may lie. Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. Read the candidate's response in full

2. Select the level

- For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
- The response does not need to meet all of the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
- If the work fits more than one level, judge which one provides the best match.
- If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.

3. Select a mark within the level

- Once you have selected the level, you will need to choose the mark to apply.
- A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
- If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each sub-task

Sub-task	Core Activity		Sub-task weighting (% section time)
Section 1			
(a)	A	Prepare costing information for different purposes to meet the needs of management	36%
(b)	A	Prepare costing information for different purposes to meet the needs of management	36%
(c)	B	Prepare budget information and assess its use for planning and control purposes	28%
Section 2			
(a)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	28%
(b)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	28%
(c)	B	Prepare budget information and assess its use for planning and control purposes	44%
Section 3			
(a)	E	Prepare information to support short-term decision making	52%
(b)	C	Analyse performance using financial and non-financial information	48%
Section 4			
(a)	C	Analyse performance using financial and non-financial information	32%
(b)	F	Prepare information to manage working capital	36%
(c)	E	Prepare information to support short-term decision making	32%

SECTION 1			
Task (a): Explain the difficulties we need to consider when costing the development and use of the app.			
Trait			
Developing the app	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the difficulties to consider when costing the development of the app. The explanation lacks clarity, depth and/or application to the scenario/reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the difficulties to consider when costing the development of the app. The explanation may lack some clarity, depth and/or application to the scenario/reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the difficulties to consider when costing the development of the app. The explanation is mostly clear and comprehensive. There is application to the scenario and reference to the information given.	5
Using the app	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the difficulties to consider when costing the use of the app. The explanation lacks clarity, depth and/or application to the scenario/reference to the information given.	1
	Level 2	Demonstrates a reasonable understanding of the difficulties to consider when costing the use of the app. The explanation may lack some clarity, depth and/or application to the scenario/reference to the information given.	2 – 3
	Level 3	Demonstrates a good understanding of the difficulties to consider when costing the use of the app. The explanation is mostly clear and comprehensive. There is application to the scenario and reference to the information given.	4

SECTION 1 continued			
Task (b): Explain the difficulties we face in controlling the full production cost of bespoke saddles excluding the costs of the app.			
Difficulties	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the difficulties of controlling the full production cost of bespoke saddles. The explanation lacks clarity, depth and/or application to the scenario/reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of the difficulties of controlling the full production costs of bespoke saddles. The explanation may lack some clarity, depth and/or application to the scenario/reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of the difficulties of controlling the full production costs of bespoke saddles. The explanation is mostly clear and comprehensive. There is application to the scenario and reference to the information given.	7 – 9

SECTION 1 continued			
Task (c): Explain big data and if it would be of benefit or not when producing our sales budgets.			
Trait			
Big data	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of what big data is. The explanation lacks clarity, depth and has little/no application to the scenario.	1
	Level 2	Demonstrates a reasonable understanding of what big data is. The explanation lacks some clarity, depth and/or application to the scenario.	2
	Level 3	Demonstrates a good understanding of what big data is. The explanation is mostly clear, comprehensive and applied to the scenario.	3
Sales budgets	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the use of big data for producing sales budgets. The explanation lacks clarity, depth and/or reference to the scenario and information given.	1
	Level 2	Demonstrates a reasonable understanding of the use of big data for producing sales budgets. The explanation may lack some clarity, depth and/or reference to the scenario and information given.	2 – 3
	Level 3	Demonstrates a good understanding of the use of big data for producing sales budgets. The explanation is mostly clear, comprehensive and refers to the scenario and information given.	4

SECTION 2			
Task (a): Explain how the sale of the ZZ3 would be recorded in the financial statements for the year ended 31 December 2024.			
Trait			
Sale of ZZ3	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how the asset sale should be recorded in the financial statements. The explanation lacks clarity, depth and/or reference to the scenario, or the information given.	1 – 2
	Level 2	Demonstrates a reasonable technical understanding of how the asset sale should be recorded in the financial statements. The explanation may lack some clarity, depth and/or reference to the scenario, or the information given.	3 – 5
	Level 3	Demonstrates a good technical understanding of how the asset sale should be recorded in the financial statements. The explanation is mostly clear, comprehensive and refers to the scenario and the information given.	6 – 7

SECTION 2 continued			
Task (b): Explain the difference between accounting depreciation and tax depreciation with reference to Table 1. Please also explain how the AX1 will be treated in both the financial statements and the corporate income tax calculation for the year ended 31 December 2024.			
Trait			
Accounting and tax depreciation	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of the difference between accounting and tax depreciation. The explanation lacks clarity, depth and/or reference to the information given.	1
	Level 2	Demonstrates a reasonable technical understanding of the difference between accounting and tax depreciation. The explanation may lack clarity, depth and/or reference to the information given.	2 - 3
	Level 3	Demonstrates a good technical understanding of the difference between accounting and tax depreciation. The explanation is mostly clear, comprehensive and refers to the information given.	4
Sale of asset	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how the sale of the asset should be treated. The explanation lacks clarity, depth and/or reference to the information given.	1
	Level 2	Demonstrates a reasonable technical understanding of how the sale of the asset should be treated. The explanation may lack some clarity, depth and/or reference to the information given.	2
	Level 3	Demonstrates a good technical understanding of how the sale of the asset should be treated. The explanation is mostly clear, comprehensive and refers to the information given.	3

SECTION 2 continued			
Task (c): Explain how we could use time series analysis to predict sales of our saddles, including sales of the new bespoke range and any difficulties we would face.			
Trait			
Time series	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how to use time series analysis to predict sales of bespoke saddles and any difficulties faced. The explanation lacks clarity, depth and/or reference to the scenario, or the information given.	1 – 4
	Level 2	Demonstrates a reasonable understanding of how to use time series analysis to predict sales of bespoke saddles and any difficulties faced. The explanation may lack some clarity, depth and/or reference to the scenario, or the information given.	5 – 8
	Level 3	Demonstrates a good understanding of how to use time series analysis to predict sales of bespoke saddles and any difficulties faced. The explanation is mostly clear, comprehensive and refers to the scenario and the information given.	9 – 11

SECTION 3			
Task (a): Explain the information in Table 1 and how the size of the team chosen will be dependent on the risk profile of the decision taker. Please also explain the issues we should consider when using the statistical analysis in Table 1.			
Trait			
Payoff table	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of Table 1 and the decision criteria used to select the size of the saddle fitting team. The explanation lacks clarity, depth and/or reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of Table 1 and the decision criteria used to select the size of the saddle fitting team. The explanation may lack some clarity, depth and/or reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of Table 1 and the decision criteria used to select the size of the saddle fitting team. The explanation is mostly clear, comprehensive and refers to the information given.	7 – 8
Issues	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the issues to consider. The explanation lacks clarity, depth and/or reference to the scenario, or the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the issues to consider. The explanation may lack some clarity, depth and/or reference to the scenario, or the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the issues to consider. The explanation is mostly clear, comprehensive and refers to the scenario and the information given.	5

SECTION 3 continued			
Task (b): Suggest three KPIs which could be used to monitor the performance of each individual saddle fitter in the team and one KPI which could be used to monitor cost control of each saddle fitter. For each KPI, please explain how it can be measured and why it would be appropriate.			
Trait			
Performance KPIs	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies at least one KPI which is relevant for monitoring the performance of each individual saddle fitter. The explanation of how to measure and appropriateness lacks clarity, depth and/or application to the scenario.	1 – 3
	Level 2	Identifies at least two KPIs which are relevant for monitoring the performance of each individual saddle fitter. The explanation of how to measure and appropriateness may lack some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Identifies at least three KPIs which are relevant for monitoring the performance of each individual saddle fitter. The explanation of how to measure and appropriateness is mostly clear, comprehensive and applied to the scenario.	7 – 9
Cost control KPI	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies one KPI which is relevant for monitoring cost control of each saddle fitter. The explanation of how to measure and appropriateness lacks clarity, depth and/or application to the scenario.	1
	Level 2	Identifies one KPI which is relevant for monitoring cost control of each saddle fitter. The explanation of how to measure and appropriateness may lack some clarity, depth and/or application to the scenario.	2
	Level 3	Identifies one KPI which is relevant for monitoring cost control of each saddle fitter. The explanation of how to measure and	3

		appropriateness is mostly clear, comprehensive and applied to the scenario.	
SECTION 4			
Task (a): Explain what each of the sales variances in Table 1 means, giving reasons why the variances have occurred and what the variances indicate about the relationship between the sales of Comet and Bespoke saddles.			
Trait			
Variances	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the variances. The explanation of the variances and what they indicate about the sales of Comet and Bespoke saddles lacks clarity, depth and/or application to the specific scenario/reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of the variances. The explanation the variances and what they indicate about the sales of Comet and Bespoke saddles may lack some clarity, depth and/or application to the specific scenario/reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of the variances. The explanation of the variances and what they indicate about the sales of Comet and Bespoke saddles is mostly clear and comprehensive. There is application to the specific scenario and reference to the information given.	7 – 8

SECTION 4 continued			
Task (b): Explain what a comparison of the infographics in Table 2 show and the impact of the new product on our working capital cycle and cash balance.			
Trait			
Working capital	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the working capital cycle. The explanation lacks clarity, depth and/or application to the specific scenario/reference to the information given.	1
	Level 2	Demonstrates a reasonable understanding of the working capital cycle. The explanation may lack some clarity, depth and/or application to the specific scenario/reference to the information given.	2 – 3
	Level 3	Demonstrates a good understanding of the working capital cycle. The explanation is mostly clear and comprehensive. There is application to the specific scenario and reference to the information given.	4
Issues in managing working capital	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the issues of managing working capital. The explanation lacks clarity, depth and/or application to the specific scenario/reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the issues of managing working capital. The explanation may lack some clarity, depth and/or application to the specific scenario/reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of the issues of managing working capital. The explanation is mostly clear and comprehensive. There is application to the specific scenario and reference to the information given.	5

SECTION 4 continued			
Task (c): Explain why a high rate of growth in the sales of bespoke saddles could lead to operational problems for Kanann.			
Trait			
Operational problems	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the operational problems. The explanation lacks clarity, depth and/or application to the specific scenario/reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of the operational problems. The explanation may lack some clarity, depth and/or application to the specific scenario/reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of the operational problems. The explanation is mostly clear and comprehensive. There is application to the specific scenario and reference to the information given.	7 – 8

Operational Level Case Study May & August 2024

Marking Guidance - Variant 4

About this marking scheme

This marking scheme has been prepared for the 2019 CGMA Professional Qualification Operational Case Study [May & August 2024].

The indicative answers will show the expected or most orthodox approach; however, the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

General marking guidance is given below, and markers are subject to extensive training, standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

Care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded, and full marks should be awarded when all level descriptor criteria are met.

- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks. Markers should mark according to the marking scheme and not their perception of where the passing standard may lie. Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. Read the candidate's response in full

2. Select the level

- For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
- The response does not need to meet all of the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
- If the work fits more than one level, judge which one provides the best match.
- If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.

3. Select a mark within the level

- Once you have selected the level, you will need to choose the mark to apply.
- A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
- If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each sub-task

Sub-task	Core activity		Sub-task weighting (% section time)
Section 1			
(a)	B	Prepare budget information and assess its use for planning and control purposes.	28%
(b)	B	Prepare budget information and assess its use for planning and control purposes.	24%
(c)	C	Analyse performance using financial and non-financial information.	48%
Section 2			
(a)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles.	64%
(b)	F	Prepare information to manage working capital.	36%
Section 3			
(a)	E	Prepare information to support short-term decision making.	52%
(b)	A	Prepare costing information for different purposes to meet the needs of management.	48%
Section 4			
(a)	C	Analyse performance using financial and non-financial information.	48%
(b)	B	Prepare budget information and assess its use for planning and control purposes.	24%
(c)	E	Prepare information to support short-term decision making.	28%

SECTION 1			
Task (a): Explain the impacts of each of the options on budgeted revenue, contribution and profit for the K-Jump range.			
Trait			
Impacts	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains the impact of each option on budgeted revenue, contribution and profit to a limited extent. The explanation lacks technical accuracy and clarity. Little reference is made to the Table 1 information.	1 – 2
	Level 2	Explains the impact of each option on budgeted revenue, contribution and profit to some extent. The explanation lacks some technical accuracy and clarity. Reasonable reference is made to the Table 1 information.	3 – 5
	Level 3	Explains the impact of each option on budgeted revenue, contribution and profit to a good extent. The explanation is mostly technically accurate and clear. Good reference is made to the Table 1 information.	6 – 7
Task (b): Explain the factors we should consider before using this what-if analysis to decide which option to implement.			
Trait			
Factors to consider	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains at least one relevant factor to consider about this what-if analysis. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Explains at least two relevant factors to consider about this what-if analysis. The explanation lacks some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Explains at least three relevant factors to consider about this what-if analysis. The explanation is mostly clear, comprehensive and applied to the scenario.	5 – 6

SECTION 1 continued			
Task (c): Suggest four KPIs that are appropriate to monitor the performance of the new tree supplier. Please explain how each KPI would be measured and why it would be appropriate.			
KPIs	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Suggests at least one suitable KPI to measure the performance of the new tree supplier. The explanation of measurement and appropriateness lacks clarity, depth and application to the scenario.	1 – 4
	Level 2	Suggests at least two suitable KPIs to measure the performance of the new tree supplier. The explanation of measurement and appropriateness lacks some clarity, depth and/or application to the scenario.	5 – 8
	Level 3	Suggests at least three suitable KPIs to measure the performance of the new tree supplier. The explanation of measurement and appropriateness is mostly clear, comprehensive and applied to the scenario.	9 – 12

SECTION 2			
Task (a): Explain how each of the expenditure items in Table 1 will be initially recorded and subsequently measured in our financial statements for the year ending 31 December 2024.			
Trait			
Building & redecoration	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how to initially record and subsequently measure the expenditure on the building and redecoration. The explanation lacks clarity, technical accuracy, depth and application to the information.	1 – 3
	Level 2	Demonstrates a reasonable technical understanding of how to initially record and subsequently measure the expenditure on the building and redecoration. The explanation lacks some clarity, technical accuracy, depth and/or application to the information.	4 – 6
	Level 3	Demonstrates a good technical understanding of how to initially record and subsequently measure the expenditure on the building and redecoration. The explanation is mostly clear, technically accurate, comprehensive and applied to the information.	7 – 9
Sewing machine	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of how to initially record and subsequently measure the expenditure on the sewing machine. The explanation lacks clarity, technical accuracy, depth and application to the information.	1 – 2
	Level 2	Demonstrates a reasonable technical understanding of how to initially record and subsequently measure the expenditure on the sewing machine. The explanation lacks some clarity, technical accuracy, depth and/or application to the information.	3 – 5
	Level 3	Demonstrates a good technical understanding of how to initially record and subsequently measure the expenditure on the sewing machine. The explanation is mostly clear, technically accurate, comprehensive and applied to the information.	6 – 7

SECTION 2 continued			
Task (b): Explain the actions we could take to manage our working capital to avoid a cash deficit arising. Please include any potential implications of these actions.			
Trait			
Actions and implications	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains a limited number of actions that could be taken to manage working capital to improve liquidity. The explanation lacks clarity, depth and application to the scenario. It may not include any implications of the actions identified.	1 – 3
	Level 2	Explains a reasonable number of actions that could be taken to manage working capital to improve liquidity. The explanation lacks some clarity, depth and/or application to the scenario. There is some attempt to include the implications of the actions identified.	4 – 6
	Level 3	Explains a good number of actions that could be taken to manage working capital to improve liquidity. The explanation is mostly clear, comprehensive and applied to the scenario. There is a reasonable attempt to include the implications of the actions identified.	7 – 9

SECTION 3			
Task (a): Explain the feasible region of Graph 1, how to use the graph to determine the optimal production plan and what that optimal production plan is. Please also explain the financial and non-financial factors we should consider before proceeding with this production plan.			
Trait			
The graph	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of Graph 1 and where the optimal solution is. The explanation lacks technical accuracy, clarity, depth and reference to the information in the graph.	1 – 2
	Level 2	Demonstrates a reasonable understanding of Graph 1 and where the optimal solution is. The explanation lacks some technical accuracy, clarity, depth and/or reference to the information in the graph.	3 – 5
	Level 3	Demonstrates a good understanding of Graph 1 and where the optimal solution is. The explanation is mostly technically accurate, clear, comprehensive with reference to the information in the graph.	6 – 7
Factors to consider	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Provides some explanation of relevant factors to be considered. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Provides a reasonable explanation of relevant factors to be considered. The explanation lacks some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Provides a good explanation of relevant factors to be considered. The explanation is mostly clear, comprehensive and applied to the scenario.	5 – 6

SECTION 3 continued			
Task (b): Explain how an ABC approach would change how we absorb fixed production overheads and the impact that this would have on the costings for K-Jump saddles compared to general purpose saddles. Please illustrate your explanation with reference to the information in Schedule 1.			
Trait			
Changes with ABC	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some general understanding of ABC. There is limited, if any attempt, to explain how this would change the way fixed production overheads are absorbed. The explanation lacks clarity and application to the scenario.	1 – 2
	Level 2	Demonstrates a general understanding of ABC. There is a reasonable attempt to explain how this would change how fixed production overheads are absorbed. The explanation lacks some clarity and application to the scenario.	3 – 5
	Level 3	Demonstrates a general understanding of ABC. There is a good attempt to explain how this would change how fixed production overheads are absorbed. The explanation is mostly clear and applied to the scenario.	6 – 7
Impact on costings	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Recognises that there will be a difference but fails to explain this clearly and makes little reference to the information given.	1 – 2
	Level 2	Recognises that there will be a difference and attempts to explain this with reference to the information given. The explanation lacks some clarity and detail.	3 – 4
	Level 3	Recognises that there will be a difference and attempts to explain this with reference to the information given. The explanation is clear and detailed.	5

SECTION 4			
Task (a): Explain what each of the variances in Table 1 mean and likely reasons for their occurrence.			
Trait			
Variances	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains the meaning of at least one of the types of variance with technical accuracy. Some reasons are given but these do not necessarily relate to the correct variance or be drawn from the scenario.	1 – 4
	Level 2	Explains the meaning of at least two of the types of variance with technical accuracy. Reasons are given but these may not necessarily always relate to the correct variance or be drawn from the scenario.	5 – 8
	Level 3	Explains the meaning of all three types of variance with technical accuracy. Reasons are given and these mostly related to the correct variance and are drawn from the scenario.	9 – 12

SECTION 4 continued			
Task (b): Explain how a responsibility accounting system could be implemented in the Production Facility. Please illustrate your explanation with reference to the variances shown in Table 1.			
Trait			
Responsibility accounting	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of responsibility accounting. The explanation lacks clarity, depth and application to the scenario and the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of responsibility accounting. The explanation lacks some clarity, depth and/or application to the scenario and the information given.	3 – 4
	Level 3	Demonstrates a good understanding of responsibility accounting. The explanation is mostly clear, comprehensive and applied to the scenario and the information given.	5 – 6

SECTION 4 continued			
Task (c): Explain how the information shown in Table 2 would be used to decide which of the bridle and rein models we should buy in and which we should make in-house, assuming that we want to utilise all of the available cutting machine hours.			
Trait			
Make or buy decision	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how to make the decision. The explanation lacks clarity, depth and application to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of how to make the decision. The explanation lacks some clarity, depth and/or application to the information given.	3 – 5
	Level 3	Demonstrates a good understanding of how to make the decision. The explanation is mostly clear, comprehensive and applied to the information given.	6 – 7

Operational Level Case Study May & August 2024

Marking Guidance - Variant 5

About this marking scheme

This marking scheme has been prepared for the 2019 CGMA Professional Qualification Operational Case Study [May & August 2024].

The indicative answers will show the expected or most orthodox approach; however, the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

General marking guidance is given below, and markers are subject to extensive training, standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

Care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded, and full marks should be awarded when all level descriptor criteria are met.

- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks. Markers should mark according to the marking scheme and not their perception of where the passing standard may lie. Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. Read the candidate's response in full

2. Select the level

- For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
- The response does not need to meet all of the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
- If the work fits more than one level, judge which one provides the best match.
- If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.

3. Select a mark within the level

- Once you have selected the level, you will need to choose the mark to apply.
- A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
- If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each sub-task

Sub-task	Core activity		Sub-task weighting (% section time)
Section 1			
(a)	B	Prepare budget information and assess its use for planning and control purposes.	44%
(b)	B	Prepare budget information and assess its use for planning and control purposes.	24%
(c)	F	Prepare information to manage working capital.	32%
Section 2			
(a)	A	Prepare costing information for different purposes to meet the needs of management.	52%
(b)	E	Prepare information to support short-term decision making.	24%
(c)	E	Prepare information to support short-term decision making.	24%
Section 3			
(a)	E	Prepare information to support short-term decision making.	28%
(b)	E	Prepare information to support short-term decision making.	24%
(c)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	24%
(d)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	24%
Section 4			
(a)	C	Analyse performance using financial and non-financial information.	48%
(b)	C	Analyse performance using financial and non-financial information.	36%
(c)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles	16%

SECTION 1			
Task (a): Explain what Graph 1 shows. Please also explain how to determine a trend line and seasonal variations based on a 4-point moving average (using all of the data in the graph) and the additive model.			
Trait			
Graph 1	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of what the graph shows. The explanation lacks clarity, depth, technical accuracy and reference to the graph and information in the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of what the graph shows. The explanation lacks some clarity, depth, technical accuracy and/or reference to the graph and information in the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of what the graph shows. The explanation is clear, comprehensive, technically accurate and makes reference to the graph and information in the scenario.	5
Trend line & SV	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how to determine a trend line and seasonal variations. The explanation lacks clarity, depth, technical accuracy and reference to the graph and information in the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of how to determine a trend line and seasonal variations. The explanation lacks some clarity, depth, technical accuracy and/or reference to the graph and information in the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of how to determine a trend line and seasonal variations. The explanation is clear, comprehensive, technically accurate and makes reference to the graph and information in the scenario.	5 – 6

SECTION 1 continued			
Task (b): Explain the difficulties of using this trend line and these seasonal variations to create a forecast of sales volumes in Geeland for the quarter October to December 2024.			
Difficulties	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains at least one difficulty. The explanation lacks clarity, technical accuracy, depth and application to the scenario.	1 – 2
	Level 2	Explains at least two difficulties. The explanation lacks some clarity, technical accuracy, depth and/or application to the scenario.	3 – 4
	Level 3	Explains at least three difficulties. The explanation is mostly clear, comprehensive, technically accurate and applied to the scenario.	5 – 6
Task (c): Explain the working capital approaches adopted by each of the potential customers and how this will influence how we determine trading terms with each of them.			
Trait			
Working capital	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the approaches taken and how this will influence trading terms. The explanation lacks clarity, technical accuracy, depth and application to the scenario.	1 – 3
	Level 2	Demonstrates a reasonable understanding of the approaches taken and how this will influence trading terms. The explanation lacks some clarity, technical accuracy, depth and/or application to the scenario.	4 – 6
	Level 3	Demonstrates a good understanding of the approaches taken and how this will influence trading terms. The explanation is mostly clear, comprehensive, technically accurate and applied to the scenario.	7 – 8

SECTION 2			
Task (a): Explain the direct and indirect costs associated with a specific video. Please also explain the potential problems of determining the total cost for each specific video.			
Trait			
Direct and indirect costs	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies with technical accuracy a limited number of direct and indirect costs. The explanation lacks clarity, depth and reference to the information given.	1 – 2
	Level 2	Identifies with technical accuracy some of the direct and indirect costs. The explanation lacks some clarity, depth and/or reference to the information given.	3 – 5
	Level 3	Identifies with technical accuracy most of the direct and indirect costs. The explanation is mostly clear, comprehensive and references the information given.	6 – 7
Potential problems	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains at least one potential problem. The explanation lacks clarity, technical accuracy, depth and application to the scenario.	1 – 2
	Level 2	Explains at least two potential problems. The explanation lacks some clarity, technical accuracy, depth and/or application to the scenario.	3 – 4
	Level 3	Explains at least three potential problems. The explanation is mostly clear, comprehensive, technically accurate and applied to the scenario.	5 – 6

SECTION 2 continued			
Task (b): Explain how the decision about which promotional campaign to choose would be made if the SMT was either risk seeking, risk neutral or risk averse, in each case giving the decision that would be taken.			
Trait			
Decision	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains with technical accuracy how to make the decision for at least one of the risk attitudes. The explanation lacks clarity and depth and the correct campaign is not always identified.	1 – 2
	Level 2	Explains with technical accuracy how to make the decision for at least two of the risk attitudes. The explanation lacks some clarity and/or depth and the correct campaign may not always identified.	3 – 4
	Level 3	Explains with technical accuracy how to make the decision for all three risk attitudes. The explanation is mostly clear and comprehensive and the correct campaigns are identified.	5 – 6
Task (c): Explain any limitations associated with the information used to complete Table 1 and any limitations of using the three decision approaches.			
Trait			
Limitations	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains at least one limitation. The explanation lacks clarity, technical accuracy, depth and application to the scenario.	1 – 2
	Level 2	Explains at least two limitations. The explanation lacks some clarity, technical accuracy, depth and/or application to the scenario.	3 – 4
	Level 3	Explains at least three limitations. The explanation is mostly clear, comprehensive, technically accurate and applied to the scenario.	5 – 6

SECTION 3			
Task (a): Explain Chart 1 and the information that it gives us.			
Trait			
Chart 1	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains limited aspects of Chart 1 and the information provided. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Explains some aspects of Chart 1 and the information provided. The explanation lacks some clarity, depth and/or application to the scenario	3 – 5
	Level 3	Explains many aspects of Chart 1 and the information provided. The explanation is mostly clear, comprehensive and applied to the scenario.	6 – 7
Task (b): Explain the benefits and limitations of this break-even analysis, with reference to the uncertainty surrounding the mix of sales and level of discount.			
Trait			
Usefulness	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Provides some explanation of the usefulness of the break-even analysis. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Provides a reasonable explanation of the usefulness of the break-even analysis. The explanation lacks some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Provides a good explanation of the usefulness of the break-even analysis. The explanation is mostly clear, comprehensive and applied to the scenario.	5 – 6

SECTION 3 continued			
Task (c): Explain how the right-of-use asset associated with the leased fork-lift truck detailed in Table 1 will be initially recorded and subsequently measured in our financial statements for the year ending 31 December 2024.			
Trait			
Right-of-use asset	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of the initial and subsequent measurement of the right-of-use asset. The explanation lacks clarity, depth, technical accuracy and application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of the initial and subsequent measurement of the right-of-use asset. The explanation lacks some clarity, depth, technical accuracy and/or application to the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of the initial and subsequent measurement of the right-of-use asset. The explanation is mostly clear, comprehensive, technically accurate and applied to the scenario.	5 – 6
Task (d): Explain how accessories inventory will be measured in our financial statements, with reference to all of the information in Table 2 and to the measurement rule in the relevant financial reporting standard.			
Trait			
Inventory	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how to value the inventory. The explanation lacks clarity, depth, technical accuracy and application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of how to value the inventory. The explanation lacks some clarity, depth, technical accuracy and/or application to the scenario	3 – 4
	Level 3	Demonstrates a good understanding of how to value the inventory. The explanation is mostly clear, comprehensive, technically accurate and applied to the scenario.	5 – 6

SECTION 4			
Task (a): Explain what the sales variances in Table 1 mean and possible reasons why they have arisen.			
Trait			
Sales variances	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of what sales variances mean in a general sense, but reference to the meaning of the specific variances is limited. Some reasons are given for the variances, but these do not necessarily relate to the correct variance or are drawn from the scenario. The explanation lacks clarity.	1 – 4
	Level 2	Demonstrates a reasonable technical understanding of what sales variances mean in a general sense and makes reasonable reference to the meaning of the specific variances. Some reasons are given for the variances, but these may not always relate to the correct variance or are drawn from the scenario. The explanation lacks some clarity.	5 – 8
	Level 3	Demonstrates a good technical understanding of what sales variances mean in a general sense with good reference to the meaning of the specific variances. A range of reasons are given for the variances that are drawn from the scenario. The explanation is mostly clear.	9 – 12

SECTION 4 continued			
Task (b): Explain three KPIs that could be used to monitor the performance of Ben Harris, Geeland Sales Manager. Please include an explanation of how each KPI would be measured and why it would be appropriate.			
Trait			
KPIs	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Suggests at least one sensible KPI. The explanation about measurement and appropriateness lacks clarity, depth and application to the scenario.	1 – 3
	Level 2	Suggests at least two sensible KPIs. The explanation about measurement and appropriateness lacks some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Suggests at least three sensible KPIs. The explanation about measurement and appropriateness is mostly clear, comprehensive and applied to the scenario.	7 – 9

SECTION 4 continued			
Task (c): Explain whether or not the event on 28 January will affect the financial statements for the year ended 31 December 2024 and how the financial statements will be affected.			
Trait			
IAS 10	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some technical understanding of IAS 10. The explanation lacks clarity, depth and application to the scenario.	1
	Level 2	Demonstrates a reasonable technical understanding of IAS 10 and how the event will be dealt with in the financial statements. The explanation lacks some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Demonstrates a good technical understanding of IAS 10 and how the event will be dealt with in the financial statements. The explanation is mostly clear, comprehensive and applied to the scenario.	4

Operational Level Case Study May & August 2024

Marking Guidance - Variant 6

About this marking scheme

This marking scheme has been prepared for the 2019 CGMA Professional Qualification Operational Case Study [May & August 2024].

The indicative answers will show the expected or most orthodox approach; however, the nature of the case study examination tasks means that a range of responses will be valid. The descriptors within this level-based marking scheme are holistic and can accommodate a range of acceptable responses.

General marking guidance is given below, and markers are subject to extensive training, standardisation activities and ongoing monitoring to ensure that judgements are being made correctly and consistently.

Care must be taken not to make too many assumptions about future marking schemes on the basis of this document. While the guiding principles remain constant, details may change depending on the content of a particular case study examination form.

General marking guidance

- Marking schemes should be applied positively, with candidates rewarded for what they have demonstrated and not penalised for omissions.
- All marks on the scheme are designed to be awarded, and full marks should be awarded when all level descriptor criteria are met.

- The marking scheme and indicative answers are provided as a guide to markers. They are not intended to be exhaustive and other valid approaches must be rewarded. Equally, students do not have to make all of the points mentioned in the indicative answers to receive the highest level of the marking scheme.
- An answer which does not address the requirements of the task must be awarded no marks. Markers should mark according to the marking scheme and not their perception of where the passing standard may lie. Where markers are in doubt as to the application of the marking scheme to a particular candidate script, they must contact their lead marker.

How to use this levels-based marking scheme

1. Read the candidate's response in full

2. Select the level

- For each trait in the marking scheme, read each level descriptor and select one, using a best-fit approach.
- The response does not need to meet all of the criteria of the level descriptor – it should be placed at the level when it meets more of the criteria of this level than the criteria of the other levels.
- If the work fits more than one level, judge which one provides the best match.
- If the work is on the borderline between two levels, then it should be placed either at the top of the lower band or the bottom of the higher band, depending on where it fits best.

3. Select a mark within the level

- Once you have selected the level, you will need to choose the mark to apply.
- A small range of marks may be given at each level. You will need to use your professional judgement to decide which mark to allocate.
- If the answer is of high quality and convincingly meets the requirements of the level, then you should award the highest mark available. If not, then you should award a lower mark within the range available, making a judgement on the overall quality of the answer in relation to the level descriptor.

Summary of the core activities tested within each sub-task

Sub-task	Core activity		Sub-task weighting (% section time)
Section 1			
(a)	A	Prepare costing information for different purposes to meet the needs of management.	48%
(b)	F	Prepare information to manage working capital.	52%
Section 2			
(a)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles.	44%
(b)	D	Apply relevant financial reporting standards and corporate governance, ethical and tax principles.	20%
(c)	B	Prepare budget information and assess its use for planning and control purposes.	36%
Section 3			
(a)	B	Prepare budget information and assess its use for planning and control purposes.	32%
(b)	E	Prepare information to support short-term decision making.	32%
(c)	E	Prepare information to support short-term decision making.	12%
(d)	E	Prepare information to support short-term decision making.	24%
Section 4			
(a)	C	Analyse performance using financial and non-financial information.	40%
(b)	C	Analyse performance using financial and non-financial information.	24%
(c)	C	Analyse performance using financial and non-financial information.	36%

SECTION 1			
Task (a): Explain the three areas of the CGMA cost transformation model mentioned above and how these apply and could be applied to our business.			
Trait			
Risk	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of this element of the model. The explanation lacks clarity, depth and application to the scenario.	1
	Level 2	Demonstrates a reasonable understanding of this element of the model. The explanation lacks some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Demonstrates a good understanding of this element of the model. The explanation is mostly clear and applied to the scenario.	4
Cost drivers	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of this element of the model. The explanation lacks clarity, depth and application to the scenario.	1
	Level 2	Demonstrates a reasonable understanding of this element of the model. The explanation lacks some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Demonstrates a good understanding of this element of the model. The explanation is mostly clear and applied to the scenario.	4
Sustainability	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of this element of the model. The explanation lacks clarity, depth and application to the scenario.	1
	Level 2	Demonstrates a reasonable understanding of this element of the model. The explanation lacks some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Demonstrates a good understanding of this element of the model. The explanation is mostly clear and applied to the scenario.	4

SECTION 1 continued			
Task (b): Explain the benefits and drawbacks of taking a more aggressive approach to the management of our inventory levels. Please also explain whether adopting Just-In-Time purchasing would be a suitable way for us to achieve this.			
Benefits	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains at least one benefit of a more aggressive approach. The explanation lacks clarity, depth and application to the scenario.	1
	Level 2	Explains at least one benefit of a more aggressive approach. The explanation lacks some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Explains at least two benefits of a more aggressive approach. The explanation is mostly clear and applied to the scenario.	4
Drawbacks	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains at least one drawback of a more aggressive approach. The explanation lacks clarity, depth and application to the scenario.	1
	Level 2	Explains at least one drawback of a more aggressive approach. The explanation lacks some clarity, depth and/or application to the scenario.	2 – 3
	Level 3	Explains at least two drawbacks of a more aggressive approach. The explanation is mostly clear and applied to the scenario.	4
JIT purchasing	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of JIT purchasing. The explanation of suitability lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Demonstrates an understanding of JIT purchasing. The explanation of suitability lacks some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Demonstrates an understanding of JIT purchasing. The explanation of suitability is mostly clear and applied to the scenario.	5

SECTION 2			
Task (a): Explain , with appropriate justification, how this industrial sewing machine will be reflected in our financial statements for the year ending 31 December 2024, assuming that the SMT decide to sell the asset at the meeting on 1 December.			
Trait			
Justification	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding that this asset would be reclassified as an asset held for sale. The justification of why this is the case contains some technical inaccuracies and lacks clarity, depth and reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding that this asset would be reclassified as an asset held for sale. The justification of why this is the case may contain some technical inaccuracies and may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding that this asset would be reclassified as an asset held for sale. The justification of why this is the case is technically accurate, clear and references the information given.	5
Affect	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how this asset would affect the financial statements. The explanation contains some technical inaccuracies and lacks clarity, depth and reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of how this asset would affect the financial statements. The explanation may contain some technical inaccuracies and may lack some clarity, depth and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of how this asset would affect the financial statements. The explanation is technically accurate, clear and references the information given.	5 – 6

SECTION 2 continued			
Task (b): Explain how the disposal of the warehouse building will affect the amount of capital tax payable by the company for the year ending 31 December 2024.			
Trait			
Capital tax	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how the sale of the building will affect the amount of capital tax. The explanation lacks clarity, depth, technical accuracy and reference to the information given.	1 – 2
	Level 2	Demonstrates a reasonable understanding of how the sale of the building will affect the amount of capital tax. The explanation lacks some clarity, depth, technical accuracy and/or reference to the information given.	3 – 4
	Level 3	Demonstrates a good understanding of how the sale of the building will affect the amount of capital tax. The explanation is mostly clear, comprehensive, technically accurate and references the information given.	5
Task (c): Explain how an ABB approach could be applied in determining a budget for maintenance team employee costs.			
Trait			
ABB	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how to apply an ABB approach to create the budget. The explanation lacks clarity, depth, technical accuracy and reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of how to apply an ABB approach to create the budget. The explanation lacks some clarity, depth, technical accuracy and/or reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of how to apply an ABB approach to create the budget. The explanation is mostly clear, comprehensive, technically accurate and references the information given.	7 – 9

SECTION 3			
Task (a): Explain the figures in the what-if analysis in Table 1 and what they indicate about the impact on budgeted profit of changes in sales volumes, average variable cost per unit and average selling prices.			
Trait			
What-if	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of this what-if analysis. The explanation lacks clarity, depth and reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of this what-if analysis. The explanation lacks some clarity, depth and/or reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of this what-if analysis. The explanation is mostly clear, comprehensive and references the information given.	7 – 8

SECTION 3 continued			
Task (b): Explain how the expected values in Table 3 have been calculated and what the three measures in the table mean.			
Trait			
Table 3	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of how the expected values have been calculated and what the other measures mean. The explanation lacks clarity, depth and reference to the information given.	1 – 3
	Level 2	Demonstrates a reasonable understanding of how the expected values have been calculated and what the other measures mean. The explanation lacks some clarity, depth and/or reference to the information given.	4 – 6
	Level 3	Demonstrates a good understanding of how the expected values have been calculated and what the other measures mean. The explanation is mostly clear, comprehensive and references the information given.	7 – 8
Task (c): Explain how the attitude to risk of the decision maker will impact which average selling price would be chosen.			
Trait			
Risk attitudes	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains with technical accuracy how at least one risk attitude will affect how the decision is made. The explanation lacks clarity and application to the scenario.	1
	Level 2	Explains with technical accuracy how at least two risk attitudes will affect how the decision is made. The explanation lacks some clarity and application to the scenario.	2
	Level 3	Explains with technical accuracy how three risk attitudes will affect how the decision is made. The explanation is mostly clear and applied to the scenario.	3

SECTION 3 continued			
Task (d): Explain any limitations of the what-if information included in Table 1 and any drawbacks of using expected value to make this decision.			
Trait			
Limitations & drawbacks	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains at least one issue. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Explains at least two issues. The explanation lacks some clarity, depth and application to the scenario.	3 – 4
	Level 3	Explains at least three issues. The explanation is mostly clear, comprehensive and applied to the scenario.	5 – 6

SECTION 4			
Task (a): Explain what each of the variances in Table 1 means and possible reasons for their occurrence.			
Trait			
Variances	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Explains with technical accuracy the meaning of and gives valid reasons for at least one of the variances. The explanation overall lacks clarity and depth.	1 – 3
	Level 2	Explains with technical accuracy the meaning of and gives valid reasons for at least two of the variances. The explanation overall lacks some clarity and depth.	4 – 7
	Level 3	Explains with technical accuracy the meaning of and gives valid reasons for at least three of the variances. The explanation overall is mostly clear and comprehensive.	8 – 10
Task (b): Explain the benefits of splitting variances into planning and operational variances, with reference to the fixed production overheads variances.			
Trait			
Planning and operational	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Demonstrates some understanding of planning and operational variances. The explanation lacks clarity, depth and application to the scenario.	1 – 2
	Level 2	Demonstrates a reasonable understanding of planning and operational variances. The explanation lacks some clarity, depth and/or application to the scenario.	3 – 4
	Level 3	Demonstrates a good understanding of planning and operational variances. The explanation is mostly clear, comprehensive and applied to the scenario.	5 – 6

SECTION 4 continued			
Task (c): Suggest three KPIs that are appropriate to monitor the performance of Jack Newman, Production Manager, with respect to his management of employees. Please explain how each KPI would be measured and why it would be appropriate.			
Trait			
KPIs	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Suggests at least one appropriate KPI. The explanation lacks clarity, depth and application to the scenario.	1 – 3
	Level 2	Suggests at least two appropriate KPIs. The explanation lacks some clarity, depth and/or application to the scenario.	4 – 6
	Level 3	Suggests at least three appropriate KPIs. The explanation is mostly clear, comprehensive and applied to the scenario.	7 – 9