November 2021 and February 2022 Strategic Case Study

2019 CIMA Professional Qualification

Full post exam support materials

Below is the full post-exam supporting material for the operational case study exam.

Pre-seen material
November 2021 and February 2022 operational case study pre-seen can be found here

Examiner's report
The November 2021 and February 2022 examiner's report can be found here

Exam variants
- Variant 1 can be accessed here
- Variant 2 can be accessed here
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Suggested solutions
- Suggested solutions for variant 1 can be accessed here
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Marking Guidance
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If you need any further information please contact us here

November 2021 & February 2022 Strategic Case Study Examination
Pre-seen material

COVID-19 Statement

This pre-seen and the case study in general (while aiming to reflect real life), are set in a context where the COVID-19 pandemic has 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 the pandemic or social distancing will, of course, be marked on their merits. In most cases, however, candidates may find it helpful to assume that there are no restrictions to the movement of people, goods or services in place.

Contents

Introduction

Pixlwizz is a quoted company that creates and sells video games. Pixlwizz generates revenue streams from its games in several different ways.

You are a senior manager in Pixlwizz's finance function. You report directly to the Board and advise on special projects and strategic matters.

Pixlwizz is based in Westland, a developed country that has an active and well-regulated stock exchange. Westland's currency is the W$. Westland requires companies to prepare their financial statements in accordance with International Financial Reporting Standards (IFRS).

The video game industry

Video games take many different forms. They comprise interactive software that enables players to view and control graphic images.

Globally there are approximately 2,500 companies employing approximately 70,000 people in the development of video games. These figures do not include the many companies that support the creation and sale of video games through the manufacture and sale of hardware and the provision of operating systems and other software that supports gameplay.

Game developers generated revenue of approximately W$170 billion in 2020, with projected revenues of W$180 billion in 2021.
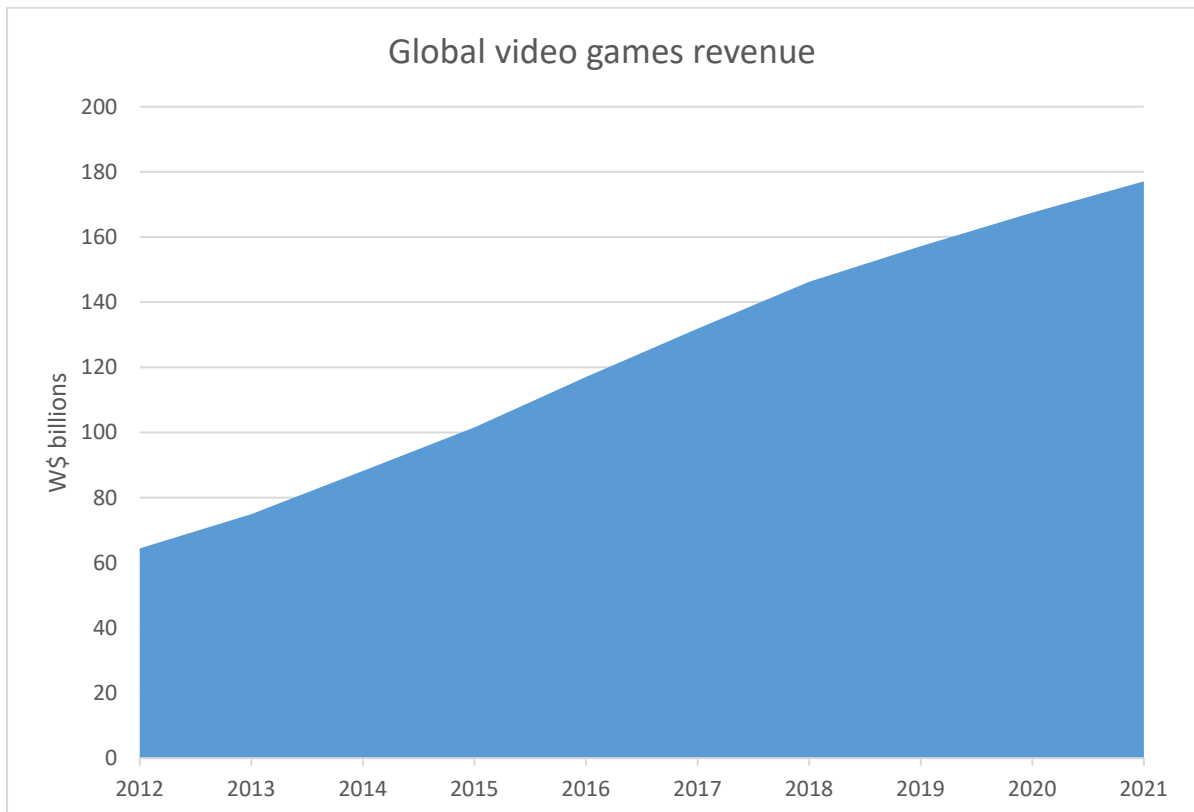
It is estimated that there are 2.7 billion video gamers worldwide, of whom 55% are male.

The average age of gamers is 34 years, with a wide dispersion of player ages around that age.

The video game industry
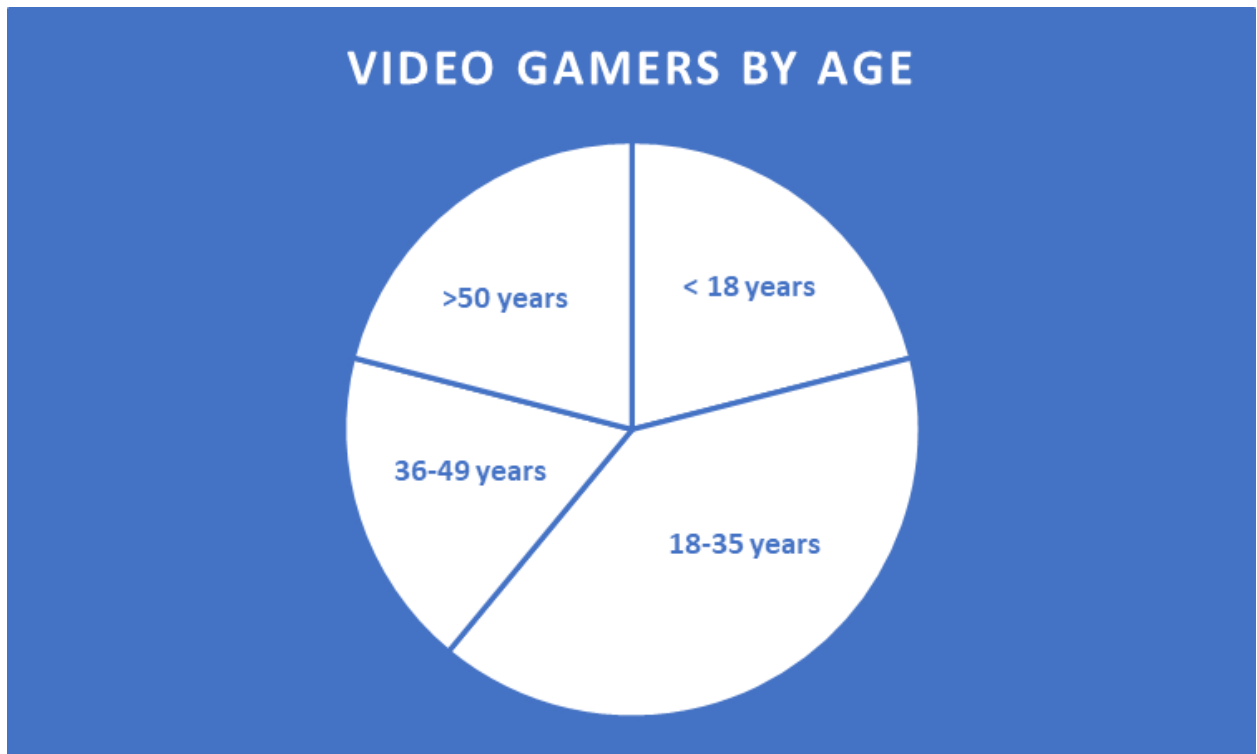
Video gaming has existed in one form or another for decades, but the industry has changed constantly in response to developments in the hardware used to run gaming software.

Game console	Game consoles are devices that are designed to play games in the home. They are usually connected to a television screen or a monitor.
	Games are loaded from physical media such as cartridges or DVD ROM or they can be downloaded from the internet via the player's home Wi-Fi.
	Console manufacturers often design their machines so that they connect directly to the manufacturers'

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	own website. That can simplify the process of downloading and installing software created by companies such as Pixlwizz.
Handheld console 	Handheld consoles are self-contained units that have integrated screens and are battery powered, which means that they can be played without having to connect to a screen or other device (although some handheld consoles can mirror their displays onto monitors or televisions). Games can be loaded from cartridges or downloaded from the internet. Handheld consoles are portable and so can be used while travelling.
VR/AR 	Virtual reality (VR) is a major area of growth in video gaming. In a home setting, virtual reality requires players to wear headsets that contain screens that replicate the eye's binocular vision to create a sense of depth. Sensors in the headset detect head movements and that is fed back through the screens so that the player feels immersed in the virtual world created by the software. Augmented reality (AR) takes input from cameras incorporated into the headset and combines that with virtual images so that players see both simultaneously. That could, for example, create the impression that there is an exotic bird hovering in the player's living room. VR headsets are generally used in conjunction with other gaming devices, such as PCs or consoles.
PC/laptop 	Video games are essentially just software and so many games are written for conventional computers. Those games are generally downloaded from the internet, although they may also be purchased in DVD ROM form. Video games generally require significant amounts of processing power. Serious gamers often invest heavily in powerful graphics cards and other components that can cope with the demands created by games.
Tablet, smartphone, smart TV	Many consumer devices have sufficient processing power to offer gameplay. Players can download games onto their phones, tablets and smart

televisions. Those will not offer the same processing power as consoles or PCs, but they are convenient and may avoid the need to buy a separate device to run gaming software.

Developments in the video game industry have been driven largely by improvements in the hardware devices that are available to gamers. For example, improvements in the graphics processors used in PCs and consoles have encouraged game developers to create games that make full use of that processing power. Many games offer players the opportunity to engage with a virtual world that comes close to being photographic in terms of image quality.

Many video games require players to have access to websites through which the players can access their accounts and on which they can play games. Those websites are generally cloud-based. The introduction of cloud-based gaming is a relatively recent development that is expected to be a huge growth area in the industry. Websites can be provided by hardware manufacturers, particularly those who make consoles, by companies who create and sell game software or by stand-alone companies who provide this facility as a commercial service. The providers of these websites will collect any payments that are due from players for their gameplay.

There are various ways in which revenues can be generated from games.

- **Downloads and boxed games** require the player to pay to download the software or to purchase it on an item of physical medium such as a console game cartridge or a DVD ROM. The payment entitles the player to run the game and may also grant access to online forums for play against other human competitors.

- **Pay to play games** require players to pay a relatively small amount each time they wish to log in and play, or they must make a monthly subscription payment.

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- **Cloud gaming** is essentially a form of pay to play that has recently been introduced by some game companies. Gamers pay a monthly fee that entitles them to play any of a selection of games offered by the company. These games are played over the internet and are streamed to the gamers' devices.

- **Free to play games** can be downloaded or run directly from a website. The player must register and is given the opportunity to make in-game purchases. For example, some online games require players to create characters who must develop skills and gather objects through play that will be of use to them in their virtual environment.
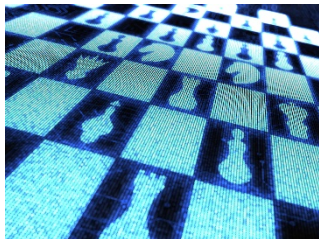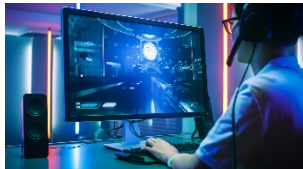
  Many of these games restrict gamers' ability to play effectively unless they purchase tokens that can be exchanged online for virtual objects such as maps or magical powers that can enhance their characters. The monetary cost of these purchases is generally only a few Cents per item, but purchasing opportunities are frequent and continue throughout the game, even into the most advanced levels.

- **Social games** are available through social networks. They are often paid for by advertisers, who can develop games that promote their brands and products.

Most online games, including those that are free to play, require the entry of a valid credit card number. That is partly to ensure that the game account is being created by an adult, even if the intention is to create an account for a child's use. It may then be possible for players to charge the cost of upgrades or enhancements to that card. Game companies set out the terms under which credit cards can be charged in the licence agreement that must be accepted when the player's account is created. Game accounts can often take automatic payments from credit cards, unless that facility is disabled by the credit card holder.

Developing video games

There are many different types of game, reflecting the interests of different players and the capabilities and limitations of their preferred devices for gameplay.

Puzzle	These games involve an intellectual challenge, with no need for quick reactions. They may be computerised versions of traditional board or card games. For example, the player may play chess or draughts, with the software acting as the opponent, or they may play a card game such as poker or solitaire.
Action games	These take many different forms, but they are characterised by the fact that they involve a physical challenge, usually stressing hand–eye coordination. These games include: • Action games – can be variations on puzzle games in which players must react quickly to patterns or objects that appear on their screens, otherwise they will lose a life or the game will end. • Platform games – involve guiding a fantasy character on a journey, dealing with hazards along the way. For example, the character might have to jump over tripwires or duck to avoid lightning bolts. • Simulating a challenge set in a realistic virtual world as seen through a character's eyes. For example, the player might see a patch of jungle from the point of view of a

	soldier who must carry out a patrol without being seen by enemy troops or being injured by wildlife.
Simulations	Gameplay puts the player in control of a vehicle or other item. For example, a flight simulator would put the player in charge of an aircraft. Simulators can be written to emulate the physical challenges and to make the gameplay very realistic. For example, a rally driving simulator might offer a choice of cars and circuits. The software would then offer a very similar experience to driving that car, for instance, a more powerful car accelerating faster. Some simulators offer an almost cinematic representation of the setting. For example, a ship simulator might offer a very detailed view of the wharf as it would be seen from the ship's bridge, with realistic buildings, cranes and even dock workers on the pier. Hardware manufacturers sell a wide range of peripherals that can be plugged into computers or consoles to assist in simulator gameplay.
Sports	Players can take control of their favourite team or they can control an individual team member in order to put themselves right inside the action. For example, a soccer game might enable the player to act as the team manager, making team selections and deciding on tactics. More sophisticated games allow for the strengths and weaknesses of the team's squad members. The game will then permit the player's team to compete against a computerised opponent or the software will show its predicted outcome of a match against another human player's chosen team and tactics. Games between human opponents may involve a prearranged competition between friends or they may assign opponents who happen to be online and who are interested in playing. Alternatively, some games permit the player to take control of a particular team member for the duration of the match. Such games allow for real-world attributes such as speed, stamina and skill. When games are played online, the players often receive scores and rankings based on the number of games played and their success or failure in those games. There are video game versions of most popular sports.
Real-Time Strategy (RTS)	RTS games dispense with the concept of players taking turns against either a human or computerised opponent. They enable players to put the elements under their control into operation as they wish and to make changes as they proceed.

	For example, an RTS game might start with the player being given control of, say, 20 workers who are at the edge of a blanked-out screen. The player must then make strategic decisions as to how many of those workers will be put to work on various tasks such as construction, agriculture and exploration. If the player makes sensible choices then the workers will gather resources and create an affluent state. RTS games usually involve a competition against computerised or other human opponents who are competing for the same scarce resources.
Massively Multiplayer Online (MMO) 	These games involve the player taking on the role of a character in a huge and detailed virtual world. For example, the player might take on the role of an elf in a fantasy world. The player would then be free to roam that world, to use or collect objects and to interact with other characters, most of whom would be controlled by other human players. For example, the two players might trade items with one another, or they could decide to fight. As the game progresses the character will develop skills and will amass goods. There is, however, always a risk that the character will die, which will require the player to restart the game from the very beginning.
Educational 	These games are generally designed to help children develop skills such as shape and pattern recognition. The gameplay is designed to reward players for correctly identifying or classifying an item and so they combine elements of education and play.

This list is not intended to be exhaustive and many games combine elements of two or more categories.

Games can be written with a view to enabling individual play, cooperative play or competitive play against human opponents. Individual play may involve solving puzzles or playing against virtual opponents. Cooperative and competitive play involves playing either with or against human players. Some consoles permit multiple players to play simultaneously, with the screen divided to enable each player to control his or her character. Most cooperative and competitive gameplay requires players to log into a website and play as team members or opponents over the internet.

Many people are involved in the creation of a video game.

- The **game producer** is in overall charge of the commissioning and development of a video game. Video game companies develop ideas internally through market research. They also draw upon ideas suggested by gamers who participate in social media forums.

- **Game designers** create the basic brief that drives development. The designer must make decisions concerning the nature of the game and the way players will interact with game elements. Those decisions allow for both the nature of the gameplay and the aesthetic appeal of the game's appearance and soundtrack.

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- **Game artists** use the designers' brief to create the characters and backgrounds. Those must be suitable both for programming as game elements and also as art for promotional materials such as web pages and box art if the games are to be supplied on digital media.

- **Level designers** expand upon the designers' brief by creating the "story" underpinning a game. For example, an RTS game might progress through several levels, with each level changing the nature of the gameplay slightly and possibly the appearance of the background and of the controllable elements, such as characters.

  Level designers must also adapt the files created by the game artists to ensure that they can be programmed and incorporated into the game. That may require compromises, such as deciding on the complexity of a game element. Greater complexity enhances realism, but it also requires more processing power and could overtax the hardware on which the game is being played.

- **Game programmers** create the actual software codebase for the game itself. This is a complex area and there are many programming specialisms. Programmers often develop software that can be used for game development.

  Elements created by the game development software will then be combined with software written for specific parts of the game itself. For example, a driving simulator might use game development software packages to create elements such as buildings that appear on the horizon and change in size and shape as the virtual car under the player's control gets closer and as the angle changes with twists and turns in the road. Game development software also encompasses features such as physical devices that determine the effects of, say, pressing the car's brake pedal.

  Video games require significant amounts of time and effort in programming and the creation of a new game might require hundreds of programmers, working in collaboration for many months. That is particularly true of MMOs and some simulations that require the creation of a large virtual location that can be explored during the game. Some games are much smaller in comparison but will still require programming skill. For example, a puzzle game for a smartphone will not require many programmers, but every element of the game will still have to be designed and programmed.

- **Game testers** ensure that the game is working correctly by playing levels that have been written. The testers are checking for programming errors but are also interested in the playing experience. It is just as important to feed back that a particular level is not enjoyable to play or that an element of the game serves no useful purpose, even if there are no errors in the program code.

  Game testers will also consider the suitability of the game for target markets. It might be necessary to indicate that players could be disturbed by, say, a highly realistic depiction of a crash in a driving simulation game.

Successful video games must be "playable". Playability implies that the game itself is enjoyable to play. Players must be interested in achieving the game's goals, whatever they may be. They must also be provided with a suitable interface that enables them to interact with the game effectively and without undue distraction.

Game design must consider the limitations of the hardware device on which it will be played. For example, a smartphone game must be suitable for play on a relatively small screen, with game control offered through the phone's touchscreen. A console game offers much more scope for detailed graphics because they will be displayed on a television screen. The games themselves can be more complex because players will have controllers equipped with joysticks and buttons.

Publishers monitor the success or failure of published games using a variety of key performance indicators (KPIs), many of which depend on the fact that most games are played online:

- The number of **daily active users (DAU)** is self-explanatory. This KPI refers to the number of people who play a game on any given day.
- Companies also track the number of **monthly average users (MAU)**, which is less subject to distortion because of alternatives, such as major sporting fixtures or weekday versus weekend.
- Gaming companies also measure **MAU/DAU** because that gives an insight into the frequency of play. The higher that statistic, the more enjoyable a game must be.
- Companies also track **average sessions per user** in order to establish how frequently the average user plays. Related KPIs include **average session length**. These statistics offer a further insight into the game's popularity.
- Companies track **retention** over different time frames, measuring the percentage of newly registered players who return within, say 24 hours, 7 days or 28 days.
- The above statistics can be linked to player spend, to establish the **average revenue per user** or the **average revenue per DAU**.
- The **K-factor** is a measure of the extent to which existing players attract new players. It is sometimes thought of as a "viral coefficient". It can be expressed as an absolute number. For example, if existing players recommend a game to 1 million friends and 300,000 of those friends register as players then the K-factor is 1.3.
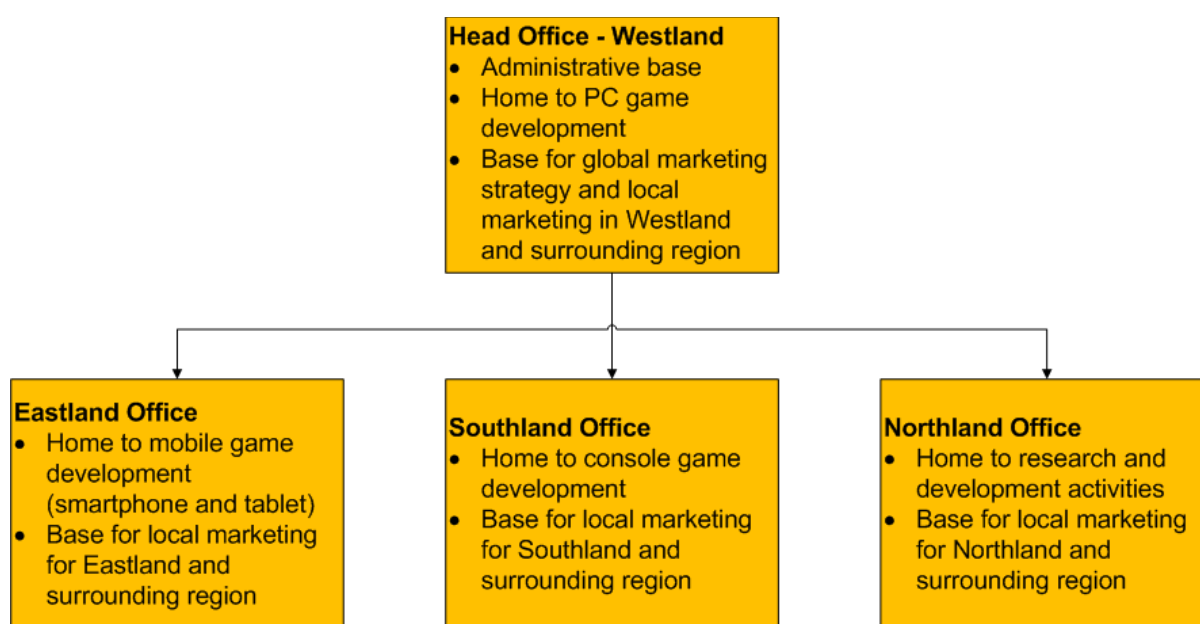
Most countries require video games to be classified in order to prevent children from being exposed to unsuitable content, such as on-screen violence. Each country has its own system for rating games, perhaps setting a minimum age of 18 or 21 for games designed for an adult audience and lower minimums for children at different stages of development.

Pixlwizz

Pixlwizz was founded in 1986. Ownership of home computers was growing and the founders were keen to establish themselves as game developers to supply that new market. The company has grown steadily throughout that period, establishing itself as one of the world's leading game developers.

Pixlwizz offers a range of games for all major hardware types and across major game types. It offers the leading games in terms of player numbers and revenues generated in many of those categories. Pixlwizz's Cratchy Swan MMO has more than 300 million registered players worldwide. Over the past year, there has been an average of 800,000 players online and playing the game at any given time.

Pixlwizz has 5,100 employees, half of whom are based at the company's Head Office in Westland's Media City. The remainder are based in the company's three overseas offices.

Head Office - Westland
- Administrative base
- Home to PC game development
- Base for global marketing strategy and local marketing in Westland and surrounding region

Eastland Office
- Home to mobile game development (smartphone and tablet)
- Base for local marketing for Eastland and surrounding region

Southland Office
- Home to console game development
- Base for local marketing for Southland and surrounding region

Northland Office
- Home to research and development activities
- Base for local marketing for Northland and surrounding region

Pixlwizz was founded in Westland and it still has its Head Office in that country. The Head Office is the base for all of the Group's administrative functions. The Head Office also acts as a base for the development of PC-based video games.

The three overseas offices were acquired individually as Pixlwizz expanded and moved into new areas of game development. Each overseas office has its own specialism regarding programming for different gaming platforms.

The Northland office's research and development activities are focussed on the creation of new and improved game development software that is used elsewhere in the Pixlwizz Group to create games for sale. The Northland Office is also heavily engaged in research for new approaches to game development, such as the integration of VR headsets into updated versions of Pixlwizz's PC and console games.

All of Pixlwizz's games are intended for sale to a global market. Games can be installed with different language options for on-screen prompts and for any speech in their soundtrack.

The Head Office is the base for Global Marketing, which is responsible for developing global strategy, such as prioritising different approaches to game development and scheduling the release dates for new games. All sales are managed by Global Marketing.

Each of the four offices is the base for a regional marketing function, which supports Global Marketing strategy by studying local trends from gamers in their respective countries and surrounding geographical regions. The regional marketing managers can also recommend ways to adapt advertising and other forms of promotional activity to better match the interests of local gamers.

All four offices are located in countries that have strong video game markets. This assists in the development of new games because each office can host focus groups and panel discussions involving local gamers, reflecting local tastes and preferences in key markets.

Pixlwizz enjoys strong sales around the world and has many successful titles. Unfortunately, even a major producer such as Pixlwizz cannot predict the popularity of new games or the longevity of existing titles. One of the strategies pursued by Pixlwizz has been the development and maintenance of "franchises", which is the industry term for a range of games that are effectively sequels to a successful original. Developers have discovered that it is often more effective to modify and enhance a popular game with additional features than to create a completely new game. Players enjoy returning to a favourite game that includes new settings or exciting new elements. The Board constantly reviews Pixlwizz's digital strategy to ensure that digital opportunities are identified and exploited in order to increase its competitive advantage.

Pixlwizz's most successful game to date has been Jakob Plunge, which was launched as a console-based action game in 2016. It rapidly became the best-selling game that year. In 2017, Pixlwizz launched a PC version to sell alongside the console game. New versions of the game have been launched every year since 2018. The latest version, Jakob Plunge Moonstar, is presently Pixlwizz's biggest single source of revenue. Earlier versions of the game continue to generate revenues. Collectively, the different versions of Jakob Plunge contribute 19% of Pixlwizz's revenues.

Most of Pixlwizz's revenue is from games that are downloaded or accessed through the internet on a pay-to-play basis. These take the forms of downloads, standalone pay-to-play games and free-to-play games.

- Games for consoles and handheld consoles are generally downloaded from the console manufacturers' websites, which they host on the cloud. The console manufacturers collect any payments for gameplay or for in-game purchases and remit that to Pixlwizz, after deducting a commission for providing this service.
- Pixlwizz has its own website for games downloaded to or accessed on PCs, laptops, smartphones and tablets. All payments are made directly to Pixlwizz through the website, although the website itself is hosted by Cloudbor, a quoted company that provides internet services to commercial customers.

Pixlwizz continues to sell games on physical media, such as cartridges for consoles and DVD ROM for PCs. These are manufactured and packaged by third party specialists in Westland. Demand for physical media is weak in most developed countries, but there is a viable demand for boxed games from countries where internet access is slow or unreliable.

Extracts from Pixlwizz's annual report

Pixlwizz's vision, mission and values

<u>Our vision</u>

Pixlwizz will always be the best game developer in the real and the virtual worlds.

<u>Our mission</u>

Pixlwizz exists to attract the talented people who create virtual worlds that enable gamers to immerse themselves in exciting realities. Pixlwizz creates exciting places to work and to play.

<u>Our core values</u>

Imagination	Pixlwizz creates the places in which gamers wish to spend their free time, whether settling down for an evening's gameplay or passing the time on a commute to work.
Innovation	Pixlwizz games set trends across the industry because we strive to surprise and excite gamers with every new release.
Commitment	Pixlwizz is the place where talented people wish to work. Our creative staff are passionate about developing new ideas and leading the way in creating new forms of gameplay.
Teamwork	Pixlwizz relies on cooperation between all workers across all levels. Games can only be created if there are talented creative people who can count on the support of the colleagues who manage the space in which they put their talents to work.

Extracts from Pixlwizz's annual report

Pixlwizz's Board of directors

José Sols Lucia, Non-Executive Chair

José had a successful career as a lawyer, specialising in sport management. He has been a managing partner of one of Westland's leading law firms. He subsequently served as Chair of the Westland Soccer Association.

José joined Pixlwizz's Board in 2017.

Ilana Shamir, Chief Executive Officer

Ilana joined Pixlwizz in 1997 as a games producer. She was responsible for the development of Makk Jupiter, which was the company's most successful RTS game at the time. Ilana became Head of Product Development in 2008. Ilana was promoted to Chief Operating Officer in 2013.

Ilana was promoted to Chief Executive Officer in 2016.

Afifi Al-Akiti, Chief Operating Officer

Afifi has a master's degree in software engineering. He has worked for several software companies in a software development role. His most recent appointment before Pixlwizz was as Chief Information Officer of a major car manufacturer.

Afifi's responsibilities include external liaison. That is primarily concerned with managing relations between Pixlwizz and the third parties who manufacture and sell the hardware that gamers use to play Pixlwizz's games. Changes to the specification of consoles, PCs and smartphones can affect users' ability to run games.

Afifi joined Pixlwizz as Chief Operating Officer in 2018.

Maria Tektonidou, Chief Finance Officer

Maria trained as an accountant with a manufacturing company. She has since worked in a variety of finance-related roles with several major companies. Her most recent role prior to joining Pixlwizz was as Director of Finance at a games console manufacturing company.

Maria joined Pixlwizz as Chief Finance Officer in 2016.

Zhiwu Chen, Chief Commercial Officer

Zhiwu's background is in marketing. He has held several senior marketing positions in the course of his career. He joined Pixlwizz as Head of Global Marketing in 2015.

Zhiwu was promoted to his present position in 2018.

Kristina Leonova, Independent Non-Executive Director

Kristina was a senior manager in a major television company for most of her career, reaching the company's Board before stepping down from full-time employment. She joined Pixlwizz's Board as a non-executive director in 2018.

Klaus Koschorke, Independent Non-Executive Director

Klaus has served on the Boards of several technology companies, including a leading smartphone manufacturer. He retired from full-time employment and was asked to join Pixlwizz's Board as a non-executive in 2019.

Anna Bredström, Independent Non-Executive Director

Anna has had a successful career in banking and finance. She was finance director of a major quoted electronics company before her retirement. She joined Pixlwizz's Board as a non-executive director in 2020.

Executive directors' areas of functional responsibility

Ilana Shamir Chief Executive Officer		
Afifi Al-Akiti Chief Operating Officer	Maria Tektonidou Chief Finance Officer	Zhiwu Chen Chief Commercial Officer
• Game development and programming • External liaison	• Accounting and finance • Treasury • Buildings management	• Marketing • Human resources • Public relations

Memberships of Board committees

	Board committees			
	Audit	Risk	Remuneration	Nomination
José Sols Lucia Non-Executive Chair	♦	♦	♦	♦
Kristina Leonova Independent Non-Executive Director		♦	♦	♦
Klaus Koschorke Independent Non-Executive Director	♦	♦		
Anna Bredström Independent Non-Executive Director	♦		♦	♦

Pixlwizz's principal risks

Risk	Risk mitigation
Pixlwizz is dependent upon the continuing success of a small number of game franchises. Jakob Plunge provides 19% of our total revenue and our six best-selling franchises (including Jakob Plunge) generate 82% of revenue. A successful launch by one of our competitors could cost us the revenue from one of these key franchises.	Pixlwizz invests heavily in both time and money on maintaining close contact with gamers in order to ensure that our games remain popular and exciting. We aim to offer new versions while demand for existing titles is strong so that gamers do not actually become bored with our games. We have many new games in the pipeline and we stand ready to replace any existing titles, including popular franchises, that no longer excite our customers.
The development of exciting new games may be inhibited by the limitations of the hardware on which our software must run.	Pixlwizz encourages third-party manufacturers, particularly those manufacturing dedicated games hardware such as consoles, to develop their products so that we can offer improved gameplay through their devices in our latest software.
Some third-party hardware manufacturers also develop and publish their own games and in that respect are also our direct competitors.	Our role as a leading games developer ensures that these third parties remain responsive to our needs, in addition to those of their own software designers and of the other competing development companies.
Game creation is a complicated process that requires both technical and creative skills. Pixlwizz is heavily dependent on retaining skilled staff. The creative process requires specialist teams of workers who can develop games for each of the main types of hardware device.	Pixlwizz pays close attention to staffing and the implications of losing key staff. Staff who would be relatively easy to replace, such as game programmers, are paid slightly more than the industry average. Those in key roles, such as game producers, designers and artists, are paid much more than the industry average and are provided with a range of benefits that are intended to retain their services. Junior creative staff are given extensive training in order to create a steady flow of potential replacements for any senior staff who decide to leave.
Our business model is heavily dependent on the availability of internet connectivity for downloads and online gaming and for the secure collection and remittance of players' payments. Players access many of Pixlwizz's games through the cloud-based facilities provided by third parties. The major console manufacturers offer online and cloud-	Pixlwizz works closely with all third parties to minimise the risk that our software will increase the vulnerability of their networks to malware or other forms of attack. The console manufacturers and Cloudbor are major quoted companies and all have a clear incentive to maintain adequate security.

gaming environments that are compatible with their hardware. We rely on the facilities offered by Cloudbor for the environment required by those of our games that are designed to run on generic hardware types such as smartphones, PCs and tablets. These environments offer tempting targets to cyber attackers.	

The following information has been extracted from Pixlwizz's financial statements for the year ended 31 December 2020

Pixlwizz Group
Consolidated statement of profit or loss
for the year ended 31 December

	2020	2019
	W$ million	W$ million
Revenue	4,016	3,574
Operating costs	(1,345)	(1,251)
Operating profit	2,671	2,323
Finance costs	(41)	(41)
	2,630	2,282
Tax expense	(316)	(274)
Profit for the year	2,314	2,008

Pixlwizz Group
Consolidated statement of changes in equity
for the year ended 31 December 2020

	Share capital	Retained earnings	Currency reserve	Total
	W$ million	W$ million	W$ million	W$ million
Opening balance	500	606	(64)	1,042
Profit for year		2,314		2,314
Dividend		(2,065)		(2,065)
Gain on translation			12	12
Closing balance	500	855	(52)	1,303

Pixlwizz Group
Consolidated statement of financial position
as at 31 December

	2020	2019
	W$ million	**W$ million**
Assets		
Non-current assets		
Property, plant and equipment	384	325
Goodwill	320	320
Software development costs	519	498
	1,223	1,143
Current assets		
Inventories	26	23
Trade receivables	349	305
Bank	1,298	1,033
	1,673	1,361
Total assets	2,896	2,504
Equity		
Share capital	500	500
Currency reserve	(52)	(64)
Retained earnings	855	606
	1,303	1,042
Liabilities		
Non-current liabilities		
Borrowings	453	450
Current liabilities		
Trade payables	108	100
Tax liability	309	269
Deferred revenue	723	643
	1,140	1,012
Total equity and liabilities	2,896	2,504

Share price history
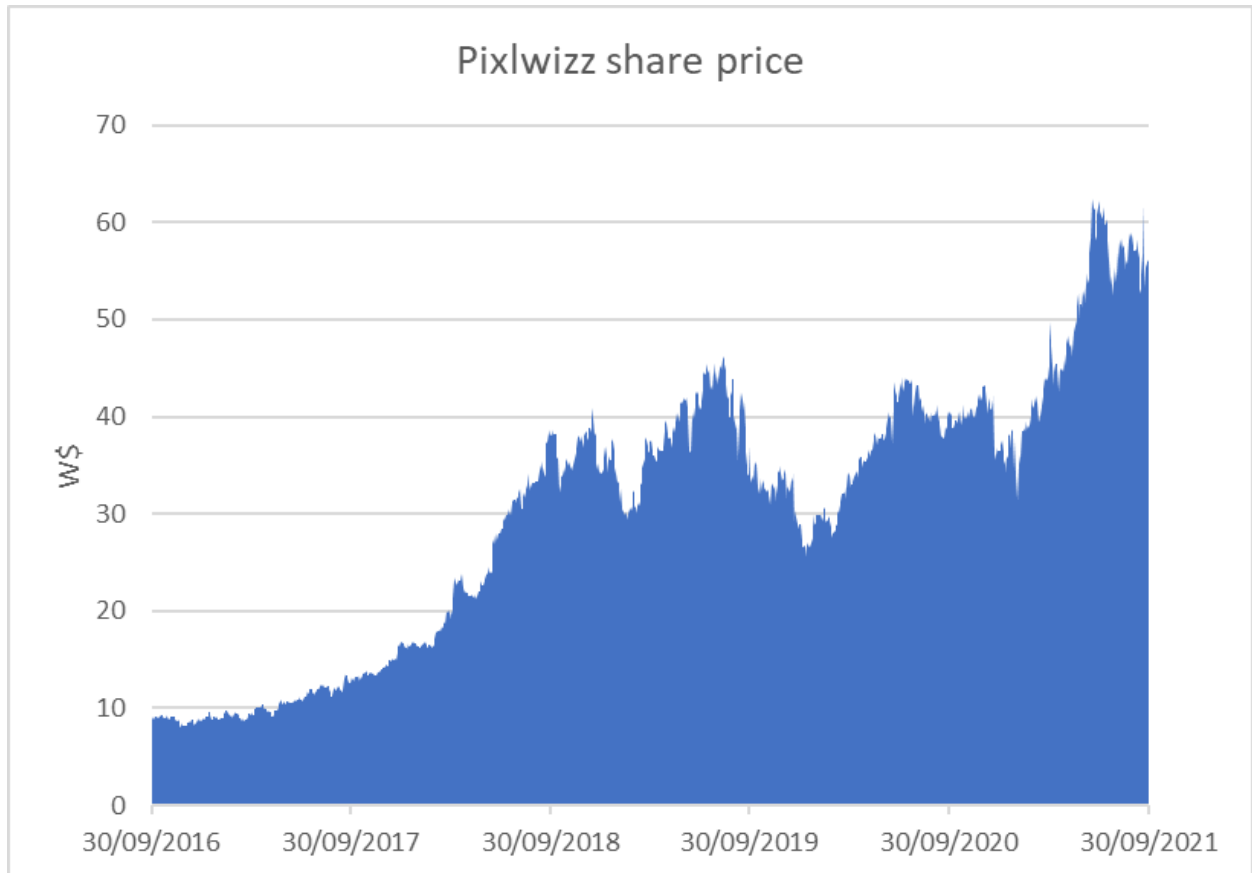
Pixlwizz's beta is 0.71.

Extract from a competitor's financial statements

Prantain Group
Consolidated statement of profit or loss
for the year ended 31 December

	2020	2019
	W$ million	**W$ million**
Revenue	4,564	4,307
Operating costs	(1,471)	(1,412)
Operating profit	3,093	2,895
Finance costs	(45)	(45)
	3,048	2,850
Tax expense	(362)	(342)
Profit for the year	2,686	2,508

Prantain Group
Consolidated statement of changes in equity
for the year ended 31 December 2020

	Share capital	Retained earnings	Currency reserve	Total
	W$ million	**W$ million**	**W$ million**	**W$ million**
Opening balance	600	501	(57)	1,044
Profit for year		2,686		2,686
Dividend		(2,526)		(2,526)
Gain on translation			9	9
Closing balance	600	661	(48)	1,213

Prantain Group
Consolidated statement of financial position
as at 31 December

	2020 W$ million	2019 W$ million
Assets		
Non-current assets		
Property, plant and equipment	433	420
Goodwill	400	400
Software development costs	556	523
	1,389	1,343
Current assets		
Inventories	30	29
Trade receivables	381	362
Bank	1,127	871
	1,538	1,262
Total assets	2,927	2,605
Equity		
Share capital	600	600
Currency reserve	(48)	(57)
Retained earnings	661	501
	1,213	1,044
Liabilities		
Non-current liabilities		
Borrowings	498	495
Current liabilities		
Trade payables	125	28
Tax liability	366	344
Deferred revenue	725	694
	1,216	1,066
Total equity and liabilities	2,927	2,605

News stories

Happy Comic

Readers' questions

Question: I would like to create a space travel game for my console. Players would build rockets and fly to planets. They would explore the universe by building bigger rockets every time they landed on a new planet and gathered resources. Can I just buy blank games cartridges that I can write my game on to?

Marc, age 13

Answer: It sounds like an exciting game, but you probably won't be able to do it on your own.

Video games are created by teams of experts. A game like yours would require designers and artists to develop plans for how the game will be played and decide what it will look like. It sounds as if each new planet is going to be a different level and that will require more development work to set the challenges and design the gameplay for each. For example, one planet might have dangerous plant life and another might have no atmosphere. Each will require differences in gameplay and graphics. Finally, the game will have to be turned into computer code by a team of programmers. Some of the most popular games require hundreds of programmers to create all of the software code.

Next time you play a game on your console, just look at the amount of detail that had to be programmed into it. For example, the sky must look brighter if your character turns towards the sun and darker if he turns away from it. Companies need teams of designers and hundreds of programmers because every single detail must be thought of and programmed.

Why don't you email your idea to one of the big development companies? They are always keen to hear from fans and they do sometimes turn their ideas into new games.

Happy Comic

Readers' questions

Question: I was playing Swerver Squirrel last night and was amazed that all the trees in the forest were different. Did the game's developers have to draw every single tree?

Maria, age 12

Answer: Game developers have software tools called algorithms that save them a huge amount of time and effort when they are creating game elements. For example, each major company will have its own software tools for creating specific things like trees, grass, water and so on. The development team can, for example, create a sea view and can specify whether the water is calm or stormy.

Algorithms can be used in lots of less obvious ways. Buildings have different textures, depending on whether they are made from bricks, stone or concrete. There are algorithms that can fill in the bricks on an outline that are not only the right size and shape, but they can be made to appear mossy and decayed if the wall is supposed to be old or that can have water dripping off of them if the scene is meant to show that it is raining.

The next time you guide Swerver Squirrel through the forest, remember that the textures and details are all being filled in by mathematical models that require just a few inputs from the programmers to create a detailed background. That frees the programmers to concentrate on the specific issues required for gameplay, such as drawing controllable characters.

Westland Telegraph

Spot the odd one out

When IT professionals are developing software, they often offer their superiors a choice: "good, fast or cheap, pick any two". In other words, choices and trade-offs have to be made between desirable outcomes associated with the software. For example, it is always possible to add additional features to a program, but that is likely to make the result more expensive to produce or delay its completion date.

The trade-off between cost, speed and quality can often be highlighted in the complex area of testing new software that is under development. The software industry claims that it can reduce the number of errors to 1-25 defects per KLOC (that is per thousand lines of delivered code).

Testing draft code can take different forms. One significant choice that must be made is between black box and white box testing. Black box testing involves checking the functionality of a piece of software by making inputs and checking that the outputs are in line with expectations. That may detect many programming errors, but there can be no guarantee that the tests involved every possible combination of inputs. White box testing involves the study of the source code to check the program's response to the inputs. It is, therefore, more likely to detect any programming errors but it is also more time consuming and expensive.

Westland Telegraph

Gamers queue all night for Jakob Plunge Magenta

Video game stores remained open until 3.00 o'clock this morning to cater for keen gamers who wished to be amongst the first to own the latest version of Pixlwizz's popular Jakob Plunge franchise. The official launch of this game was scheduled for precisely midnight.

Many shops reported that customers had started to arrive up to 24 hours before the game became available for sale. Many shops had erected shelters on the pavement and provided security staff to ensure the safety of their customers.

A spokesperson for Pixlwizz commented that the company recognised that Jakob Plunge had become a global phenomenon and that they would do everything that was required to ensure that the game remained popular.

See last week's review of Jakob Plunge Magenta.

Westland Telegraph

User acquisition is the name of the game

Video game publishers have discovered that viral marketing can be the most effective way to enhance sales. Put simply, players who enjoy a particular game are likely to recommend it to their friends, some of whom will undoubtedly buy their own copies and so further boost the publisher's revenues.

While viral marketing is hardly new, the prevalence of social media and the fact that most video games are played online, means that it is easy for happy gamers to encourage their friends to buy copies of a favourite game.

The importance of this aspect of marketing has led to the development of models that can be used to estimate and track the "K-Factor", which is the number of new players who have been attracted to play by existing players. The higher the K-Factor the better because new players will, hopefully, have contacts of their own whom they can encourage to play.

Westland Daily News

Gamers cut off by ship's anchor

Many of the world's video gamers had a disappointing weekend when they tried to log into their accounts on Saturday morning, only to discover that they could not access their favourite games.

Cloudbor, the service company that provides the cloud-based environment that hosts the gaming software from leading game companies such as Pixlwizz and Prantain, was the victim of a catastrophic accident. The company's servers rely on a major fibre-optic data cable for their internet connection. A section of that cable runs along the seabed of the Westland Sea. A ship was forced to drop anchor after its engines failed and its anchor severed the cable in a freak accident.

Cloudbor issued an apology but insisted that the accident was due to unforeseen circumstances. The company's servers are located in a remote area of Westland for security reasons and its data links are designed to be secure.

Many gamers posted complaints that their game companies had let them down. Most were unaware that their fun relied on a third party for purchases and for gameplay.

Westland Daily News

Game review – Kepple Kwest

Kepple Kwest is Pixlwizz's latest Massively Multiplayer Online (MMO) game. Players create their own unique characters and guide them towards the completion of the quest implied by the game's title. Along the way they must explore several levels, each of which is a self-contained fantasy world.

Characters must engage with one another, trading goods and information and forming alliances. The game's graphics are excellent and the programme's artificial intelligence can match facial expressions and body language to reflect the words being typed in by the player. Telling a competing character that a proposed deal is insulting really does generate all the implied frowns and tension across the shoulders.

Moving through the game requires the collection of implements and of treasure. It is worth paying attention, because a few items can be found lying on the ground, but generally anything worth having must be traded for the "Experience Points" that accrue to characters whenever their players are online. Items generally enhance skills. For example, a torch makes it easier to explore caves and navigate through darkened tunnels. Treasure must be collected steadily, otherwise the character will be unable to pay to progress through the portal to the next level.

Players must proceed with caution because there are many dangers in Kepple Kwest's virtual world. Injuries can only be treated by the purchase of a medical kit, which requires spare Experience Points. When characters die their treasure and any other items that they are carrying are lost and the player must return to the start of the quest. Many players find that aspect of the game compelling because they become increasingly keen to progress through the various levels and uncover the secrets that will be revealed at the end of the quest.

Kepple Kwest is free to play but requires online registration and online cash purchases are encouraged throughout the game experience.

Strategic 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	60	1	2	(a) 50% (b) 50%
2	60	1	2	(a) 60% (b) 40%
3	60	1	2	(a) 40% (b) 60%

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.

🖉 Scratch Pad   🖵 Calculator

[🗏 Reference Material]   [🗏 Pre-seen]

You receive the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Problems with Mercenary Earth 4

Hi

I have forwarded you an email relating to problems arising from the launch of our Mercenary Earth 4 game 2 weeks ago. This is an important game for us because it is the latest instalment in the popular Mercenary Earth series for smartphones and tablets.

The Board is concerned about the bad publicity arising from this game. Our share price fell by 5% shortly after news of the programming errors and it has not recovered since.

José Sols Lucia, Pixlwizz's Non-Executive Chair, believes that the impact on share price makes the decisions associated with resourcing the development and testing of games a strategic matter that requires the Board's attention. Afifi Al-Akiti, our Chief Operating Officer, disagrees. He believes that decisions relating to staffing and resourcing game development are operational matters for the management team to decide.

I need your opinion on two matters:

- First, evaluate José's argument that the decrease in our share price makes the problems with this game a strategic matter.

  [sub-task (a) = 50%]

- Second, ignoring the share price, recommend the governance role that the Board should have in the future development and testing of games.

  [sub-task (b) = 50%]

Regards
Maria

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

⑦ Tables and Formulae   Next →

From: Simon Briggs, Senior Games Producer
To: Maria Tektonidou, Chief Finance Officer
Subject: Fwd: Problems with Mercenary Earth 4

Hi Maria

Mercenary Earth 4 is the latest edition of our popular Mercenary Earth game series. It was launched a few weeks ago, with high initial demand. Unfortunately, there were a significant number of programming errors in the game and we have received a massive amount of negative feedback from gamers who paid to download it to their smartphones or tablets.

The game comprises a series of stages, which gamers must complete in sequence. The game was written so that each stage requires approximately 5 hours for a skilled gamer to complete, with gamers being free to pause games at any time and restart from that same position.

We have had reports of the game crashing at various points within stage 3 and subsequent stages. Unfortunately, these crashes lead to gamers losing their place and so they have to restart from the beginning and complete stages 1 and 2 again. Social media sites are full of complaints from angry gamers and popular gaming magazines have stated that the game was not fit for release.

In response to the complaints, we found the error that caused the crash in stage 3 and issued an online update that fixed the problem, but we have since had complaints of crashes in stage 4, the cause of which is still under investigation.

I have met with the game producer who managed the development and testing of this game. He believes that his team was under significant time pressure that had been imposed from above. The Mercenary Earth 4 team had only 70% of the time allowed for the development and testing of Mercenary Earth 3, despite the fact that both games contain roughly the same number of lines of program code.

Simon Briggs
Senior Game Producer, Smartphone and Tablet Games
Eastland Office

Scratch Pad   Calculator

Reference Material   Pre-seen

Draft your response to Maria's requests in the box below.

From: Senior Finance Manager
To: Maria Tektonidou, Chief Finance Officer
Subject: Re: Problems with Mercenary Earth 4

Tables and Formulae

Previous   Next →

✎ Scratch Pad ▯ Calculator

📖 Reference Material   📖 Pre-seen

Two weeks later, Maria Tektonidou hands you a document and says:

"This is an extract from the preliminary report on the programming errors that affect the Mercenary Earth 4 game.

The Board is concerned that the report implies that the programming errors should be blamed on the strengthening of the E$. Some directors believe that the problems should have been averted because everyone employed by the Pixlwizz Group is expected to demonstrate the core values of: Imagination, Innovation, Commitment and Teamwork.

I am preparing to brief the Board and need your help with the following:

- First, evaluate the currency risks faced by the management team at the Eastland Office and recommend, stating reasons, how the Pixlwizz Group might centrally manage the currency risks faced by its overseas offices.

[sub-task (a) = 60%]

- Second, evaluate the argument that the Pixlwizz core values should have prevented the programming errors that occurred in the development and testing of this game."

[sub-task (b) = 40%]

The document referred to by Maria can be found by clicking on the Reference Material button above.

⑦ Tables and Formulae   Next ➔

Preliminary report on Mercenary Earth 4 programming errors
Executive summary

Pixlwizz has three overseas offices:

- Eastland – responsible for the development and testing of smartphone and tablet games
- Southland – responsible for the development and testing of console games
- Northland – responsible for research and development activities in support of the entire Pixlwizz Group.

Each of the three offices is incorporated in its host country as a 100% subsidiary of Pixlwizz. Each has its own senior management team, which has considerable autonomy, subject to meeting the targets for the development of successful games, as set by the Pixlwizz Board. The offices do not earn any revenues. Costs incurred are reimbursed as required by payments from Pixlwizz's Head Office in Westland.

Mercenary Earth 4 was written and tested by a team in Pixlwizz's Eastland Office. That is potentially significant because Eastland has a strong economy and the E$ has strengthened steadily over the past 15 months.

Most of the Eastland Office's costs are incurred in E$, including operating expenses such as staff salaries. The strengthening E$ appears to have made the Eastland office's senior management team increasingly cost conscious. For example, the senior management team has not replaced staff who left the office during the past year unless they were deemed "essential". Where necessary, temporary staff are employed to assist development teams to write and test code.

The pressure on costs can be illustrated by the fact that the Mercenary Earth 4 game was developed and tested with only 70% of the staff hours that were used to create Mercenary Earth 3, a similar game with a similar number of lines of program code.

🖉 Scratch Pad ▯ Calculator

🪧 Reference Material   🪧 Pre-seen

Draft your response to Maria's requests in the box below.

| Paragraph | ▦ ▾ |

🖎 Scratch Pad ⊟ Calculator

[📄 Reference Material]　　　[📄 Pre-seen]

A week later, Maria Tektonidou stops by your workspace and hands you a document.

> "I printed this page from an online magazine. The results of this comparison are potentially misleading. For example, Prantain only issues updates when serious errors are discovered and Sugplae often doesn't correct errors at all. Despite that, we are meeting to discuss the reputational risks arising from the perception that our games are full of programming errors.
>
> The Board is also considering whether we should introduce greater control over the tests conducted on all games developed across the group before they are released. At present, we have testers who play games once they have been written in order to check for software crashes and other problems. It is sometimes possible for them to play sections of games to check their operation.
>
> The Board believes that the game producer in charge of each game should develop a testing plan that gives specific instructions to the game testers with regard to the ways in which they should simulate game play. The testing plan could also include the review of critical sections of program code to check that they are logical, although it is recognised that this is too time-consuming and expensive to use extensively.
>
> The test plan would be tailored to each game in development, and would be implemented at all our sites. It would be the game producer's responsibility to create the plan and to check that the whole plan has been completed.
>
> I need your help with the following:
>
> - First, explain the difficulties associated with evaluating the impact of the reputational risks arising from programming errors and recommend responses to those difficulties.
>
>   *[sub-task (a) = 40%]*
>
> - Second, evaluate the arguments for and against having Internal Audit check that the new tests on game programming are operating properly and recommend the approach that Internal Audit should take to conducting compliance tests on that system."
>
>   *[sub-task (a) = 60%]*

The magazine page referred to by Maria can be found by clicking on the Reference Material button above.

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⑦ Tables and Formulae　　　　　　　　　　　　　　　　　　Next →

Crashgame Magazine

Sorry state of game programming

Average number of updates per game
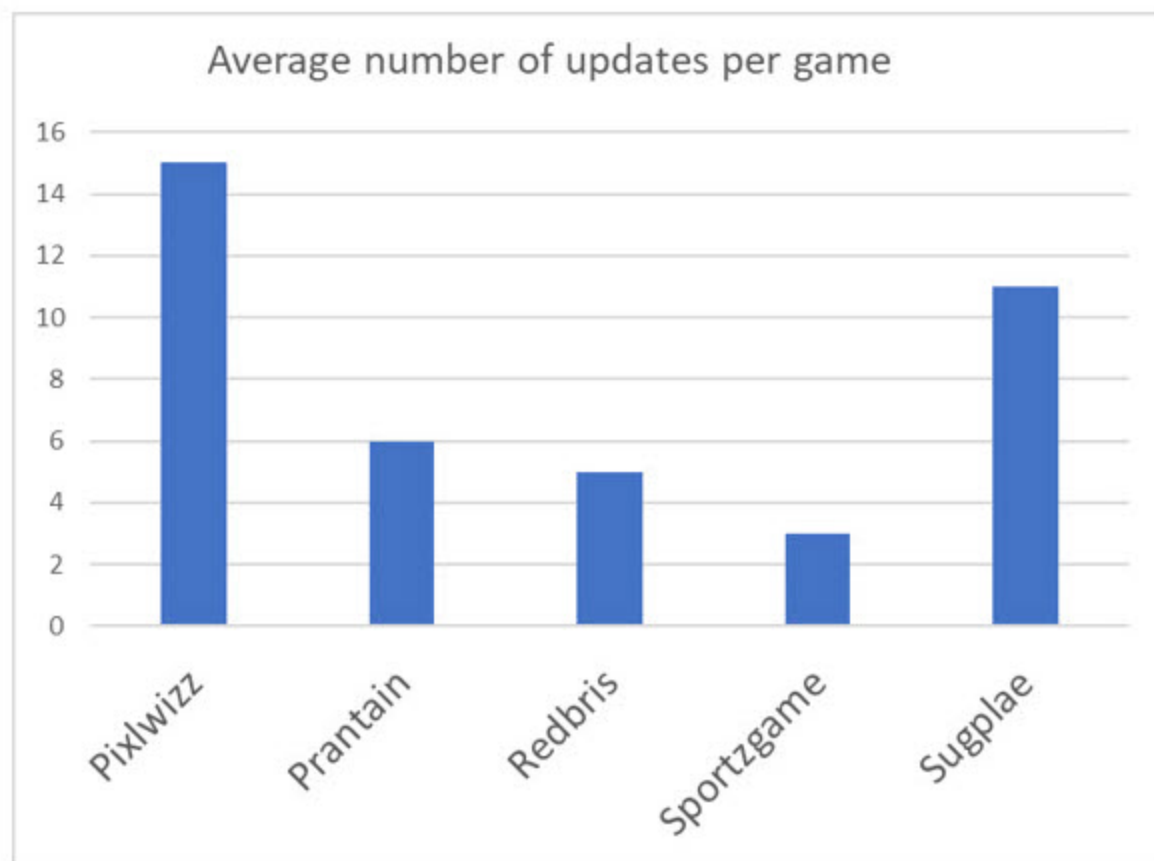
It has become almost routine to expect gaming companies to issue a series of updates that correct programming errors discovered in their games after their release. This chart shows that Pixlwizz has the highest average from the five largest companies. Its average of 15 updates per game is 2.5 times that of Prantain, its closest rival.

These figures do not include the updates that Pixlwizz will have to issue in respect of its Mercenary Earth 4 game.

✎ Scratch Pad 📋 Calculator

📖 Reference Material   📖 Pre-seen

Write your reply to Maria's requests in the box below.

Paragraph ▾ | ⊞ ▾

CIMA

Thank you for completing the Strategic 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.

Strategic 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	60	1	2	(a) 40% (b) 60%
2	60	1	2	(a) 50% (b) 50%
3	60	1	2	(a) 40% (b) 60%

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.

🖎 Scratch Pad   ⬚ Calculator

[📖 Reference Material]   [📖 Pre-seen]

You have received the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: In-game purchases

Hi

I have attached a news article that could seriously damage our reputation.

Kepple Kwest is not the first game to rely on in-game purchases to generate revenue, but it has been one of the most successful games of that type in terms of attracting players and generating revenue. Kepple Kwest has more than 1.3 million registered players. The average player spends an average of W$10.00 per month on Experience Points, although 2% spend W$1.00 or less and 1% spend more than W$100.

The Board is concerned because Pixlwizz has several games in development that will use the same model of generating revenue through in-game purchases. I am working on a briefing for a meeting and require your help with the following:

- First, evaluate the suitability of in-game monetary purchases as a strategy for generating income for Pixlwizz.

[sub-task (a) = 40%]

- Second, discuss the arguments for and against the suggestion that the default setting in relation to in-game monetary purchases for Kepple Kwest is unethical.

[sub-task (b) = 60%]

Thanks
Maria

The news article referred to by Maria can be viewed by clicking the Reference Material button above.

⑦ Tables and Formulae   Next ➔

Westland Daily News

Free games cost more!

Parents are being advised to check their credit card bills carefully in light of the huge popularity of the Kepple Kwest video game. This is a free-to-play online game, but players must register their credit card details in order to play. After registration and authentication of the credit card the default settings of the game allow additional transactions without verification by the card holder.

Game play is free, but progress through the game requires the accumulation of "Experience Points", which are required to trade for implements and treasure. One Experience Point is earned for every hour spent online. Implements and treasure cost at least 10 Experience Points each, requiring players to spend 10 hours in the virtual world in order to acquire a single item. Alternatively, players can buy Experience Points for 5 Cents each, with charges going to their credit cards.

Many players are complaining that they spent more than they intended on Experience Points. Online forums carry complaints from players claiming to have spent hundreds, or even thousands, of W$ on gameplay. Also, parents are complaining that they did not realise that their children could charge Experience Points to their credit cards. One angry mother was shocked that her two children had spent more than W$170.

Pixlwizz, the game's publisher, argues that collecting credit card details ensures that only adults can create player accounts. Children can then be supervised if they use the account to play. The game's licensing agreement makes it clear that in-game purchases are available, but it is possible to play the game without buying anything. Automatic charging is enabled by default when the player's account is registered, but there is an option to disable it, in which case a separate password would be required to make a payment.

✎ Scratch Pad ⊟ Calculator

▣ Reference Material   ▣ Pre-seen

Draft your response to Maria's requests in the box below.

From: Senior Finance Manager
To: Maria Tektonidou, Chief Finance Officer
Subject: RE: In-game purchases

✎ Scratch Pad 🖵 Calculator

📋 Reference Material   📋 Pre-seen

A month later, Maria Tektonidou stops by your workspace and says:

"I have brought you an extract from the minutes of yesterday's Board meeting. The Board has asked me to explain two matters that I raised during the meeting and I need your help with the following:

- First, recommend with reasons the controls that should be introduced to ensure that only valid repayments are made.

  [sub-task (a) = 50%]

- Second, evaluate the currency transaction risks associated with the repayment proposal and recommend an appropriate response to each of the risks you identify."

  [sub-task (b) = 50%]

The extract from the Board meeting minutes referred to by Maria can be viewed by clicking on the Reference Material button above.

ⓘ Tables and Formulae

Next ➜

Board minutes extract: controversy over Kepple Kwest in-game purchases

Zhiwu Chen, Chief Commercial Officer, reported that Kepple Kwest had exceeded all expectations in terms of the number of registered players and the frequency with which registered players logged on to play. While that has been excellent for Pixlwizz's revenue, bringing in W$442 million from the sale of Kepple Kwest Experience Points since the game's launch, the game has sparked controversy because of the amounts spent by keen players.

Ilana Shamir, Chief Executive Officer, proposed that Pixlwizz could deal with this problem by reducing the cost of Experience Points by 40%, with all players being refunded 40% of the cost of the points that they had purchased since registering to play Kepple Kwest.

Maria Tektonidou, Chief Finance Officer, warned the Board that refunding purchases could be complicated by the fact that Pixlwizz's systems had not been designed to cope with refunds on this scale. She also pointed out that there could be currency risks arising from the fact that there are registered players from many countries.

All of Pixlwizz's online sales and charges are priced in W$. Sales and charges to foreign customers are converted to their local currencies at the time of payment. Refunds will be converted from W$ to local currencies at the time of these repayments.

Reference Material   **Pre-seen**

Write your reply to Maria's requests in the box below.

Paragraph ▾

✎ Scratch Pad   ⬛ Calculator

[Reference Material]   [Pre-seen]

Two months later, you receive the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Potential acquisition

Hi

I have forwarded an email that I received from Ilana Shamir, our Chief Executive Officer.

The Board is considering the purchase of Klikspec, a company with expertise in assessing and influencing game popularity. The acquisition would require us to raise the W$1,000 million price because our existing cash balances are all required for existing commitments.

Please advise me on the following matters before I report to the Board:

- First, evaluate the arguments for and against the acquisition of Klikspec by Pixlwizz.

  [sub-task (a) = 40%]

- Second, assuming the Pixlwizz Board decides to proceed with the acquisition of Klikspec, recommend with reasons how Pixlwizz should finance the purchase. Please ensure that you include any problems that might arise for Pixlwizz with the various methods you discuss.

  [sub-task (b) = 60%]

Thanks
Maria

The email forwarded by Maria can be viewed by clicking the Reference Material button above.

⑦ Tables and Formulae

Next ➜

From: Yusuke Abe, Chief Executive, Klikspec
To: Ilana Shamir, Chief Executive Officer, Pixlwizz
Subject: Acquisition

Dear Ilana

I am writing to follow up on the video meeting that we held yesterday.

As discussed, I have founded a company called Klikspec that specialises in user acquisition for the video game industry. The experts employed by the company have developed effective models that can predict a game's potential to delight its players into recommending the finished game to their social media contacts, even while the game is in development. Klikspec has also developed several apps that encourage players to post recommendations on social media.

As I indicated during our meeting, my intention is to sell 100% of Klikspec to a major video game producer. I will then continue to lead Klikspec for an interim period of 12 months before retiring. My selling price for the company and a year's involvement is W$1,000 million.

Regards

Yusuke Abe
Chief Executive
Klikspec

🔖 Scratch Pad 🖥 Calculator

▣ Reference Material   ▣ Pre-seen

Write your responses to Maria's requests in the box below.

From: Senior Finance Manager
To: Maria Tektonidou, Chief Finance Officer
Subject: RE: Potential acquisition

CIMA

Thank you for completing the Strategic 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.

⇥ End Exam

CIMA

Strategic 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	60	1	2	(a) 50% (b) 50%
2	60	1	2	(a) 60% (b) 40%
3	60	1	2	(a) 60% (b) 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.

✎ **Scratch Pad**   📱 **Calculator**

Reference Material   **Pre-seen**

You have received the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Possible acquisition

Hi

I have attached a news article that has interested the Board.

As you know, Pixlwizz has always been a software company and we have always left the manufacture of hardware to other companies. However, the Board is considering acquiring Skrenplae with a view to developing and manufacturing a new range of high-quality handheld games consoles. That would enable us to stimulate demand for games software that runs on handheld consoles.

Skrenplae is based in Westland and is quoted on the Westland Stock Exchange.

I need your help with the following:

- First, discuss the advantages and disadvantages to Pixlwizz of acquiring Skrenplae.

    [sub-task (a) = 50%]

- Second, explain the significance of the movement in Skrenplae's share price in response to rumours about an acquisition by Pixlwizz or Prantain.

    [sub-task (b) = 50%]

Regards
Maria

The news article referred to by Maria can be viewed by clicking the Reference Material button above.

❓ **Tables and Formulae**   **Next →**

Westland Daily News

Game review – Jumpin' Jaw Game Lacks Bite!
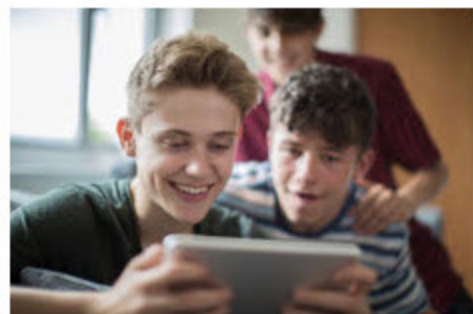
Jumpin' Jaw is Prantain's latest game for the Skrenplae handheld games console. The game itself is imaginative and would probably be great fun to play, but we are awarding it only two stars because it struggles to cope with the limitations of the Skrenplae console.

Skrenplae is the most popular manufacturer of handheld games consoles, but demand for these devices has been declining in recent years because manufacturers have failed to invest enough in the development of new products to maintain interest. Many smartphones offer superior graphics and processing power when compared with Skrenplae's latest range. This is unfortunate because many children rely on handheld consoles for game play.

Jumpin' Jaw PP – great game, but restricted by the outdated Skrenplae console

Scratch Pad   Calculator

Reference Material   **Pre-seen**

Draft your response to Maria's requests in the box below.

From: Senior Finance Manager
To: Maria Tektonidou, Chief Finance Officer
Subject: RE: Possible acquisition

Paragraph

Tables and Formulae

Previous   Next

✎ Scratch Pad ⬚ Calculator

📖 Reference Material   📖 Pre-seen

A week later, you receive the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Acquisition of Skrenplae

Hi

I have attached an extract from the minutes of a recent Board meeting.

I need your advice on two matters arising from these minutes:

- First, discuss the key risks (other than currency risks) that may arise from Pixlwizz having a manufacturing facility for mobile consoles in Eastland and recommend suitable responses.

  [sub-task (a) = 60%]

- Second, discuss the exposure to economic currency risk that may arise from Pixlwizz operating this facility in Eastland.

  [sub-task (b) = 40%]

Thanks
Maria

The extract referred to by Maria can be viewed by clicking the Reference Material button above.

⊙ Tables and Formulae   Next ➔

Board minutes extract: issues arising from acquisition of Skrenplae

Ilana Shamir, Chief Executive Officer, reminded the Board that no decision has yet been made with respect to the acquisition of Skrenplae, the manufacturer of handheld games consoles.

Zhiwu Chen, Chief Commercial Officer, commented that Skrenplae's Head Office is located in Media City in Westland but that all manufacturing is at the company's factory in Eastland, where labour costs are low. The manufacturing process is primarily the assembly of components. Labour accounts for 60% of the cost of making a games console. Electronic components, comprising 30% of total manufacturing cost, are imported to Eastland.

Pixlwizz already has a programming centre in Eastland, focussing on games designed for mobile consumer devices such as smartphones and tablets. Pixlwizz also has a programming base for the development of console games in Southland, where labour costs are high.

Maria Tektonidou, Chief Finance Officer, pointed out that Eastland's currency, the E$, is very volatile.

✎ Scratch Pad   📋 Calculator

🏳 Reference Material   🏳 Pre-seen

Write your reply to Maria's requests in the box below.

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: RE: Acquisition of Skrenplae

✎ Scratch Pad   🗌 Calculator

🗏 Reference Material   🗏 Pre-seen

Six months later, Pixlwizz has just completed its acquisition of Skrenplae.

Maria Tektonidou hands you a news report and says:

"This article summarises the latest position with regard to our acquisition of Skrenplae. This is the first time that we have had to deal with a subsidiary company that was previously an independent quoted company. It is also the first time that Pixlwizz has had to deal with minority shareholders. Our other subsidiaries are 100% owned and were established by Pixlwizz.

I have been asked to prepare a briefing for the Board and require you to draft a paper that covers the following:

- First, discuss the governance challenges that the Board will face after the acquisition of Skrenplae, which was previously an independent quoted company.

[sub-task (a) = 60%]

- Second, recommend the approach that Pixlwizz should take when managing the interests of the minority shareholders in Skrenplae."

[sub-task (b) = 40%]

The news report referred to by Maria can be viewed by clicking the Reference Material button above.

⑦ Tables and Formulae   Next ➔

Westland Telegraph

Pixlwizz takes control of Skrenplae

Pixlwizz has obtained a controlling interest of 83% of the equity of Skrenplae, the games console manufacturer. Pixlwizz had made a share for share offer that valued Skrenplae's shares at a 12% premium over the price immediately before the bid was announced.

José Sols Lucia, Pixlwizz's Non-Executive Chair, commented that he was disappointed that a significant minority of Skrenplae's shareholders had chosen not to take the offer, but he was satisfied that Pixlwizz's Board had a controlling interest. He was confident that the minority shareholders, most of whom are employees of Skrenplae, would be impressed at the improvements that Pixlwizz had planned for the Group as a whole.

Neither company law nor stock exchange requirements in Westland give minority shareholders with less than 20% of a company any specific rights. A parent company must own at least 90% of a subsidiary before it can force minority shareholders to sell it their shares.

Scratch Pad   Calculator

Reference Material   Pre-seen

Write your responses to Maria's requests in the box below.

Paragraph

CIMA

Thank you for completing the Strategic 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.

→] End Exam

Strategic 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.

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	60	1	2	(a) 60% (b) 40%
2	60	1	2	(a) 50% (b) 50%
3	60	1	2	(a) 40% (b) 60%

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.

✎ **Scratch Pad** ⊟ **Calculator**

[▤ Reference Material] [▤ Pre-seen]

You have received the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Security breach

Hi

I have attached a news article about a security breach at Cloudbor. Pixlwizz uses that company to provide online access and payment processing services for roughly 60% of our registered gamers. Many of our competitors, including Prantain, also use Cloudbor.

We ask our gamers to agree to a detailed set of terms and conditions when they register. These include a statement that Pixlwizz accepts no responsibility for losses caused by third parties. There is, however, a great deal of evidence that gamers do not read those terms and conditions before accepting them.

The Board has asked me to prepare a briefing for this afternoon and I need you to prepare a document that covers the following:

- First, recommend with reasons how Pixlwizz should identify and manage the interests of three key stakeholders affected by this breach.

[sub-task (a) = 60%]

- Second, there has been a suggestion that Pixlwizz should accept some responsibility for the identification and mitigation of the security breach at Cloudbor. Evaluate the arguments for and against this suggestion.

[sub-task (b) = 40%]

Thanks
Maria

The news article referred to by Maria can be viewed by clicking the Reference Material button above.

⑦ **Tables and Formulae**

Next →

Westland Telegraph

Gamers advised to check their credit cards

Video gamers were advised to check their credit card statements after Cloudbor, a leading provider of online video gaming facilities, admitted that its security had been breached. Cloudbor provides facilities for many major game companies, processing payments and facilitating downloads and online gameplay. The game companies generally provide their own interfaces to Cloudbor and so many gamers could be unaware that they are trading with the company.

Cloudbor has not yet announced the severity of the breach. It is believed that a cluster of computers used to process online payments was accidentally left exposed with inadequate security for a period of several days. It is unclear whether this was due to carelessness or malicious intent. It is, however, possible that the personal accounts of some gamers could have been accessed and personal details such as names, addresses and credit card numbers copied.

Scratch Pad Calculator

Reference Material   **Pre-seen**

Draft your response to Maria's requests in the box below.

Paragraph

📝 **Scratch Pad** 📱 **Calculator**

[📖 Reference Material] [📖 Pre-seen]

The following day, Maria Tektonidou asks you to read a short document.

"I have brought you an extract from the minutes of yesterday's Board meeting.

I need you to prepare a paper that covers the following:

- First, discuss the advantages and disadvantages of Pixlwizz taking control of Cloudbor.

[sub-task (a) = 50%]

- Second, discuss the relevance of the decrease in Cloudbor's share price to our decision to acquire the company."

[sub-task (b) = 50%]

The document from Maria can be viewed by clicking the Reference Material button above.

❓ **Tables and Formulae**

Next ➔

Board minutes extract: data breach at Cloudbor

Maria Tektonidou, Chief Finance Officer, briefed the Board on the security breach that had occurred at Cloudbor, the provider of online facilities to support gameplay. It was pointed out that Cloudbor was responsible for activities that generate 60% of Pixlwizz's revenue. Cloudbor also services competing game companies, including Prantain.

Ilana Shamir, Chief Executive Officer, pointed out that Cloudbor is a major quoted company in its own right and that the company's share price had fallen by 18% since the news of the breach was announced 24 hours previously.

José Sols Lucia, Non-Executive Chair, reminded the Board that Pixlwizz depends heavily on Cloudbor. The drop in Cloudbor's share price suggested that this might be an ideal time to consider acquiring the company. Discussion followed, with the Board agreeing that the idea required further thought. It was agreed that Cloudbor would have to continue to provide services to Prantain and other game companies even if we acquired it.

✍ Scratch Pad ⊟ Calculator

🗡 Reference Material   🗡 Pre-seen

Write your reply to Maria's requests in the box below.

| ▯ | ✂ | ⧉ | 📋 | ↶ | ↷ | 🔍 | **B** | *I* | U̲ | S̶ | x₂ | x² | I̲ₓ |

| Paragraph ▾ | ▦ ▾ | ≣ | ≣ | ≣ | ≣ | ☰ | ☷ | ⫤ | ⫣ |

✎ Scratch Pad   ☐ Calculator

Reference Material   **Pre-seen**

Four months have passed. Pixlwizz has acquired 100% of Cloudbor's equity. You receive the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Cloudbor

Hi

I have attached a plan covering the objectives for a detailed internal audit investigation into the security of Cloudbor's systems. This is an important investigation because we have managed to persuade the companies who have used Cloudbor's services in the past to remain with us, although they have all insisted that we reassure them that the systems there are secure.

I need you to draft a paper for me that covers the following:

- First, assuming that the Internal Audit Department's findings from its initial study of the controls are favourable, discuss the ethical implications of assuring the other game companies that Cloudbor's systems are secure.

  [sub task (a) = 40%]

- Second, explain the issues that the Audit Committee should consider when commissioning the detailed compliance audit, and also the approach the Internal Audit Department should take when undertaking and reporting on its investigation.

  [sub task (b) = 60%]

Regards
Maria

The plan forwarded by Maria can be viewed by clicking the Reference Material button above.

ⓘ **Tables and Formulae**   **Next →**

Internal audit plan for review of cybersecurity at Cloudbor

Prepared by Alfred Oikelome, Chief Internal Auditor, Pixlwizz

- Over the next 4 weeks, a team from Pixlwizz's Internal Audit Department will conduct a detailed initial study of the controls in place over the online systems used to facilitate player accounts, online payments and online play at Cloudbor.
- At the conclusion of this investigation, an initial report will be submitted to Pixlwizz's Audit Committee, with a view to any serious shortcomings being discussed by the Board.
- Once any changes required in the system have been implemented, a team from Pixlwizz's Internal Audit Department will conduct a detailed compliance investigation to check that all key controls identified during the first phase of this review are operating as they should be.
- A further report on the operation of all key controls will be submitted to the Audit Committee.

Scratch Pad   Calculator

Reference Material   Pre-seen

Write your responses to Maria's requests in the box below.

Paragraph

CIMA

Thank you for completing the Strategic 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.

⇥ End Exam

Strategic 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.

Section number	Number of tasks	Time for section (minutes)	Number of sub-task/s	% time to spend on each sub-task
1	1	60	2	(a) 60% (b) 40%
2	1	60	2	(a) 40% (b) 60%
3	1	60	2	(a) 50% (b) 50%

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.

✎ Scratch Pad 🗖 Calculator

[📑 Reference Material] [📑 Pre-seen]

You receive an email from Maria Tektonidou:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Shooot! tournament

Hi

I have attached a scanned copy of a letter to our CEO.

The Board is interested in Sporttinn's proposal, although some Board members have suggested that we could organise a tournament ourselves, without involving Sporttinn. We have no experience of organising a major tournament on this scale, but we would be able to keep 100% of the profits.

I need two things from you:

- First, ignoring currency risks, evaluate the respective strategic implications of adopting Sporttinn's proposal compared to Pixlwizz organising its own tournament.

  [sub-task (a) = 60%]

- Second, identify and evaluate the currency risks for Pixlwizz of proceeding with Sporttinn and agreeing to set all ticket prices in E$.

  [sub-task (b) = 40%]

Regards
Maria

The letter referred to by Maria can be found by clicking on the Reference Material button above.

⑦ Tables and Formulae

Next →

Sporttinn

Ms Ilana Shamir

Chief Executive Officer
Pixlwizz
Capital City

Dear Ms Shamir

Shooot! Global Tournament

I am writing to confirm the matters discussed during our recent meeting.

Pixlwizz has a successful soccer-based sport simulation called Shooot!. Gamers play online soccer matches, with each gamer taking control of a virtual soccer team. Play is online and so the gamers need never meet. Shooot! has a "broadcast" mode, which enables online spectators to watch these online matches. From the spectators' point of view, these games look and sound like televised soccer matches.

Sporttinn is a leading online platform for online sporting competitions. We propose the following:

- Sporttinn will organise "national championships" in as many countries as we can find 10 or more gamers who are willing to compete. These gamers will compete against others from their home countries, with successful gamers progressing through the tournament until national champions emerge to represent their countries.
- National champions will then play in an international competition. The player who emerges as victorious in that will receive a substantial cash prize.
- Sporttinn will promote and market the tournament, displaying Pixlwizz's brand prominently whenever Shooot! is mentioned.
- Gamers will not be charged for entry to the competition, but spectators will pay E$15 by credit card for every match that they wish to watch, or they will be able to purchase season tickets that will enable them to watch all matches for a single payment of E$100. Ticket prices will be converted and charged in local currencies at the time of purchase.
- Sporttinn will pay 20% of its revenues to Pixlwizz. We envisage that these will be substantial because there will be large numbers of matches that will attract both gamers and soccer fans.

Yours sincerely

Ben Photek

Ben Photek

Head of Business Development, Sporttinn

🖾 Scratch Pad 🗋 Calculator

🗎 Reference Material   🗎 Pre-seen

Draft your response to Maria's requests in the box below.

From: Senior Finance Manager
To: Maria Tektonidou, Chief Finance Officer
Subject: RE: Shooot! tournament

⑦ Tables and Formulae   ← Previous   Next ➔

📝 Scratch Pad   🖥 Calculator

[Reference Material]   [Pre-seen]

Six months have passed. Pixlwizz created its own online soccer tournament based on the Shooot! game.

The Board decided to launch the Shooot! Tournament alone, without involvement from Sporttinn. The day after the tournament's launch, Maria Tektonidou stops by your workspace and says:

"I have printed an online news article, which relates to the problem that disrupted yesterday's launch of the online soccer tournament. We do not plan to announce this publicly, but the initial investigation suggests that the disruption was caused by a deliberate cyber attack, possibly a "denial-of-service attack", on the web services hosted by Cloudbor.

I have just received a call from the regulators at the Westland Stock Exchange.

They analysed trading and share price movements before and after the tournament's launch. During the 2 weeks before the tournament, our share price decreased from W$55 to W$47. There was no obvious reason for the decrease, although our shares were being sold steadily in small quantities throughout that period. There was a further price decrease of W$5 during the hours following the tournament failure, but the share price recovered by W$1 this morning, shortly after the Stock Exchange reopened. The regulators are concerned that someone might have disrupted the tournament deliberately in order to manipulate our share price to their advantage.

I need your help with two matters before the Board meets:

- First, ignoring issues relating to our share price, identify the key stakeholders who were affected by the tournament's failure and recommend how we should manage their interests?

  [sub-task (a) = 40%]

- Second, explain whether the behaviour of our share price is consistent with manipulation linked to a deliberate attack on our tournament and explain the significance of any such manipulation."

  [sub-task (b) = 60%]

The news article can be found by clicking on the Reference Material button above.

❓ Tables and Formulae

Next ➔

Westland Daily News

Online soccer tournament disrupted

The opening rounds of Pixlwizz's long-awaited online soccer tournament ended yesterday, after less than 2 minutes of play. Gamers and spectators alike were left staring at a frozen image, that was eventually replaced by a banner apologising for the disruption and promising that the matches would be rescheduled to a later date.

This was a huge disappointment to several million fans worldwide, each of whom had paid W$14 to watch their chosen match. Pixlwizz had built up a great deal of interest in the tournament by promoting it heavily through social media sites aimed at both gamers and soccer fans.

The tournament was organised by Pixlwizz and hosted by Cloudbor, the leading internet service provider. Both Pixlwizz and Cloudbor refused to speculate publicly about the reasons for the failure, both commenting that investigations are ongoing and that the tournament would be restarted as soon as possible.

A spokesperson for Pixlwizz reassured spectators that their tickets remained valid and that they would be granted access to their choice of match when the tournament restarted, although the date for that had yet to be decided.

✎ Scratch Pad ☐ Calculator

📋 Reference Material   📋 Pre-seen

Draft your response to Maria's requests in the box below.

| Paragraph ▾ | ⊞ ▾ | | | | | | | | | |

✎ Scratch Pad   📄 Calculator

📋 Reference Material   📋 Pre-seen

Two weeks later, Maria Tektonidou says to you:

"I have brought you an extract from the report into the cyber attack that disrupted our recent tournament.

We plan to restart the tournament as soon as we have taken steps to ensure that there is no repeat of the disruption. The Board is meeting this afternoon to discuss controls and other precautions that we might take. We are not IT specialists, but the attack succeeded because of human error or dishonesty.

I need the following from you:

- First, recommend and justify four internal controls that we might introduce to prevent a recurrence of this disruption.

[sub-task (a) = 50%]

- Second, evaluate the arguments for and against asking our Internal Audit Department to investigate and identify the person whose actions provided the attacker with the file of spectator email addresses."

[sub-task (b) = 50%]

The report extract can be found by clicking on the Reference Material button above.

⑦ Tables and Formulae

Next ➔

Preliminary investigation into failure of Shooot! platform
Executive summary

It is now clear that our tournament was disrupted by a "denial-of-service" attack, which took the following form:

- An unknown attacker appears to have obtained a file containing email addresses of tournament spectators who had purchased tickets to watch the opening matches.
- It is unclear whether the email addresses were obtained by tricking a member of staff or whether a Pixlwizz employee was bribed to steal that data.
- The attacker sent an email to each spectator, formatted to look as if it was from Pixlwizz. The email asked spectators to click a link to confirm that they intended to watch the matches that they had paid for.
- Clicking the link loaded a piece of malware to the spectator's computer, tablet or smartphone. The malware was programmed to make repeated requests to log on to the tournament website once the tournament got under way.
- Roughly 30% of our spectators clicked on the link. There were so many login requests that our system could not cope and so the website crashed.

We have modified our website so that this particular piece of malware will no longer work against us, but any attempt to repeat this type of attack could use different programming.

Scratch Pad   Calculator

Reference Material   Pre-seen

Write your reply to Maria's requests in the box below.

Paragraph

CIMA

Thank you for completing the Strategic 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.

→] End Exam

Strategic 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.

Next →

Section number	Number of tasks	Time for section (minutes)	Number of sub-task/s	% time to spend on each sub-task
1	1	60	2	(a) 60% (b) 40%
2	1	60	2	(a) 60% (b) 40%
3	1	60	2	(a) 50% (b) 50%

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.

✍ Scratch Pad   📱 Calculator

[🎦 Reference Material]   [🎦 Pre-seen]

You receive the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Strategic planning

Hi

I have attached an extract from the Board minutes.

At the Board's request, I have spoken in confidence to Niloy Naraghi, a leading investment analyst who specialises in the videogames sector. Niloy believes that the proposed cloud gaming strategy is unsuitable for Pixlwizz. In his opinion, revenues will decline and risks will increase, leading to a fall in our share price.

I need your advice on the following:

- First, evaluate the arguments for and against this proposal being consistent with our core values.

  [sub-task (a) = 60%]

- Second, recommend with reasons whether the Board should base its decision on the advice received from the investment analyst.

  [sub-task (b) = 40%]

Regards
Maria

The extract referred to by Maria can be found by clicking on the Reference Material button above.

⑦ Tables and Formulae

Next →

Board minutes extract

Zhiwu Chen, Chief Commercial Officer, proposed that Pixlwizz should adopt cloud gaming.

At present, roughly 30% of Pixlwizz's revenue comes from payments to access individual pay-to-play games and 15% is earned from the sale of downloads and sales of games on physical media such as cartridges and DVDs. Access to a pay-to-play game costs W$2 per month. Downloads and physical media, which give an indefinite right to play, are sold for W$40.

Mr Chen's proposal is that Pixlwizz will cease the sale of pay-to-play access, downloads and physical media. Instead, the only way for gamers to play Pixlwizz games (other than games that they already own) will be to pay a monthly fee of W$25 which will entitle the gamer to play our games via cloud gaming. New games will be added when they are released.

Free-to-play games will continue as before.

Games that have already been purchased as downloads or on physical media will continue to play, but no further sales will be made.

Gamers will continue to use the same hardware as before and will play online through the Pixlwizz website that will continue to be hosted by Cloudbor.

Gamers will be on monthly contracts, with no penalties for cancellation. Gamers who cancel will lose access once their latest monthly payment expires.

This proposal led to some debate, with some Board members questioning whether it was consistent with Pixlwizz's core values of Imagination, Innovation, Commitment and Teamwork.

✎ Scratch Pad   ⎕ Calculator

🎦 Reference Material   🎦 Pre-seen

Draft your response to Maria's requests in the box below.

From: Senior Finance Manager
To: Maria Tektonidou, Chief Finance Officer
Subject: RE: Strategic planning

⑦ Tables and Formulae   ← Previous   Next ➜

✒ Scratch Pad ⬚ Calculator

📋 Reference Material   📋 Pre-seen

A month later, you receive the following email:

From: Maria Tektonidou, Chief Finance Officer
To: Senior Finance Manager
Subject: Strategic choices

Hi

I have attached an extract from a meeting agenda. As you can see, the Board is considering two alternatives with regard to cloud-based gaming: a partial commitment that would require an investment of W$450 million in programming and promotional activities and a full commitment that would require an investment of W$600 million.

I need you to help me prepare for the meeting:

- First, evaluate the challenges associated with using the Suitability, Feasibility and Acceptability criteria to choose between the two alternatives. I do not need you to make the choice between the alternatives.

  [sub-task (a) = 60%]

- Second, recommend with reasons the most appropriate method of funding the W$600 million investment that will be required if we proceed with a full commitment to cloud-based gaming.

  [sub-task (b) = 40%]

Regards
Maria

The extract referred to by Maria can be found by clicking on the Reference Material button above.

❓ Tables and Formulae   Next ➔

Extract from Board agenda

Possible approaches to cloud gaming – prepared by Zhiwu Chen, Chief Commercial Officer

Partial commitment to cloud-based gaming	Full commitment to cloud-based gaming
Restrict the sale of games on DVDs and cartridges to popular titles. Most physical media sales are exports to countries with poor internet service. DVDs and cartridges are sold for W\$40 each. They cost W\$3 each to manufacture and distribute.	Cease all sales of games on DVDs and cartridges. Pixlwizz's share of the physical media market is large and growing because many competitors have abandoned it. Sales of physical media comprise 5% of total revenue.
Pay to play will continue alongside cloud-based gaming, but the monthly charge per game will increase from W\$2 to W\$4.	Online access to pay to play will cease completely.
We will modify 150 of our most popular games for play on a cloud-based gaming basis. These games presently contribute 85% of our current revenue.	All 600 games in our catalogue will be modified and made available.

Many of our games can either be downloaded at a cost of W\$40 or played online on a pay-to-play basis for W\$2 per month.

Some gamers prefer to download games and have a permanent licence. Many of those gamers have large collections of games that will continue to be playable even if we switch to cloud-based gaming.

Download sales comprise 10% of total revenue, but demand is declining slowly in favour of pay to play.

We will stop selling downloads if we introduce cloud-based gaming.

Gamers will pay W\$25 per month for access to our cloud-based games.

Timing is an issue. Prantain is rumoured to be planning its own cloud-based gaming service. If we start work now, we could launch before Prantain.

Close

Scratch Pad Calculator

Reference Material   Pre-seen

Draft your response to Maria's requests in the box below.

From: Senior Finance Manager
To: Maria Tektonidou, Chief Finance Officer
Subject: RE: Strategic choices

📝 Scratch Pad 🖥 Calculator

📋 Reference Material   📋 Pre-seen

Six months later, Pixlwizz has developed a cloud-based gaming service based on the full commitment model. Maria Tektonidou stops by your workspace shortly before the service's launch and hands you a news report.

"This is not public knowledge, but our website was the target of a sophisticated denial-of-service attack yesterday. Thankfully, we managed to prevent a crash.

I need your advice concerning two matters before the Board meets later today.

- First, evaluate the argument that Pixlwizz has behaved unethically by switching to a cloud-based gaming service.

  [sub-task (a) = 50%]

- Second, evaluate the arguments for and against a suggestion that has been made by our Non-Executive Chair that Pixlwizz should appoint an additional non-executive director who has a background in cybersecurity."

  [sub-task (b) = 50%]

The news report referred to by Maria can be found by clicking on the Reference Material button above.

⑦ Tables and Formulae

Next →

Westland Daily News

Pixlwizz threatened with cyberwar

Pixlwizz, the leading video game company, has been the subject of intense online campaigning by unhappy gamers. Their dissatisfaction has been prompted by the launch of a cloud-based gaming service that requires gamers to pay W$25 per month for access to 600 games that must be played online.

The Editor of The Gamers magazine commented that two major complaints are emerging on social media sites that are popular with gamers. Both suggest that Pixlwizz has behaved unethically.

First, Pixlwizz will no longer sell access to a single game for W$2 per month. Many gamers are children, who can afford to pay a W$2 fee from their pocket money but are unable to afford W$25 per month. Also, many gamers have only one or two favourite games at any given time and so it will cost them significantly more to play those games.

Second, Pixlwizz has been accused of discriminating against gamers from countries that have slow or unreliable internet connections, many of which have weak economies. Gamers from those countries used to buy games on physical media, such as DVDs and cartridges because they did not rely on internet connections to enable play, but Pixlwizz plans to cease the sale of games on physical media.

Many of the complaints on social media are accompanied by threats to interfere with Pixlwizz's website in order to disrupt the cloud gaming service until the gamers' complaints are addressed.

✎ Scratch Pad ⬚ Calculator

⬛ Reference Material   ⬛ Pre-seen

Write your reply to Maria's requests in the box below.

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CIMA

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CIMA STRATEGIC CASE STUDY
NOVEMBER 2021 – FEBRUARY 2022
EXAM ANSWERS

Variant 1

Section 1

Requirement 1 – Share price?

The Board is responsible for Pixlwizz's strategic management and so any significant events that affect the wealth of the company's shareholders is automatically a matter for the Board's attention. In this case, the decline in the share price effectively reduces shareholder wealth by 5%, which is a significant amount and so requires further investigation. The concern is that the capital markets have interpreted the programming errors as indicative of a significant reputational matter that will decrease future cash flows or increase risk. The Board should consider taking immediate steps to send out a clear and unambiguous signal to the markets that the cause of these errors is under review.

The market's reaction is not particularly surprising in this context. Essentially, Pixlwizz has launched a new product that appears to be defective. The capital markets will generally take an active interest in any quoted company's product development and share prices will increase when promising new products are announced. If the product does not live up to consumers' expectations then the markets will revise their forecasts and the share price will fall. The decrease in the share price could indicate that the stock market has lost confidence in the suitability of the company's strategy or it could mean that there are concerns about the implementation of a strategy that is, in itself, sound.

The fact that the share price has decreased does not necessarily make the programming errors a strategic issue because these could be short-term share price movements that are not driven by Pixlwizz's strategy. Even if the stock market is efficient, there are sophisticated investors who attempt to profit from errors made by investors who exaggerate the impact of news on the share price. The announcement of the problem with this game could create a realistic

expectation that some shareholders will panic and sell Pixlwizz shares, which could prompt sales that will push the share price down in the short term. Sophisticated investors will wait until the share price has fallen before buying Pixlwizz and so restoring some of the loss. Such short-term speculation will not be a strategic matter for the Board to be concerned with.

The Board should also consider the background to the factors that prompted the fall in the share price. Writing software is an inherently unreliable process and even when software is tested carefully it can still be released with errors. This particular case has been unfortunate because it has led to significant adverse publicity, but the nature of the product is such that programming errors should be treated as operational matters that should be minimised in a cost-effective manner. The capital markets are undoubtedly aware that programming errors cannot be entirely eliminated and that will already have been factored into Pixlwizz's share price. Arguably, the Board should not burden the programmers and their managers with unrealistic performance standards just because isolated events such as this have an adverse impact on the share price. The share price will reflect the company's ability to generate a profit from its games, including the reputational damage caused by errors and the associated costs of creating and uploading patches.

Requirement 2 – Governance Role

The Board is ultimately responsible for all aspects of Pixlwizz's operations, even though the directors are forced to rely on managers and staff to undertake the real work of running the business. From a governance point of view, the Board must accept the final responsibility for the fact that a defective game was released and that changes will have to be made to future development. The most urgent priority is for the Board to determine what it can do to support the ongoing development of future games in a manner that strikes a sensible balance between preventing errors and incurring excessive cost and delay in creating games. The Board should perhaps seek to be briefed on the issues arising from developing and testing software. It may even be sensible to commission a short training programme.

The Board should ensure that there are formal standards in place for the development and testing process. These standards should set out the respective responsibilities of the team members involved in each new game. Given the complexity of the development process, it should be made clear who will be responsible for each aspect of quality and it should be possible for team members to be clear about whether their duties have been discharged. For example, the software is often written as a collection of modules that must be integrated and so there should be clarity as to the standards for both the individual modules and the extent to which they work together when combined. It should be clear who will be held accountable for any integration errors. The Board should make it clear that it will take an active interest in the achievement of those standards. It may be necessary for Pixlwizz to follow up on errors that can be attributed to a failure to apply the standards.

The Board should demonstrate its commitment to game quality by ensuring that all necessary resources are made available and that programming teams do not feel unduly pressured. That could mean setting achievable deadlines that will not force staff to work under undue pressure or skip tests to meet a launch date. The Board should also ensure that programming and testing staff have all the training that they require to remain up to date on the latest and most efficient techniques for writing and testing software. The budgetary control process should ensure that funds are made available for such training and the Board should take an active and visible interest in the way those funds are spent.

The Board should ensure that there is clear communication about software quality and the challenges associated with maintaining the quality of games under development. The impact of Mercenary Earth 4 on the share price suggests that the Board should ensure that the risk of future game releases being blighted by such problems is adequately disclosed in the annual report so that the shareholders can see that the Board is aware of the risk and has taken ownership of it. The Board's interest can also be communicated in other ways, such as ensuring that internal audit reviews compliance with testing procedures and reports any shortcomings. Pixlwizz could also establish internal communication processes to ensure that game developer are aware of errors that have emerged and how they occurred, in the hope that such errors will not be repeated.

Section 2

Requirement 1 - Currency risk

The Eastland Office is a foreign subsidiary that operates with considerable autonomy. The senior management team in charge of that subsidiary appear to be assessed primarily on the ability to develop successful games, which is essentially a non-financial objective. The fact that the subsidiary is not credited with any revenues means that the costs that it incurs are highly visible within the Pixlwizz Group, especially because the parent company must make regular payments to cover cash-based expenses. The running costs at the Eastland Office will be considerable because programming games is a highly labour-intensive process. This means that even a slight strengthening of the E$ will cause a significant increase in the absolute value of the costs when expressed in W$. The senior management team at the Eastland Office seems to regard the currency risk that affects their operations as a form of economic risk because the cost to Pixlwizz of operating the Eastland Office is affected by currency movements. The Eastland Office's senior management team seems to regard this as a threat to their job security or their promotion prospects.

The currency risks encourage a disproportionate level of dysfunctional behaviour because some costs cannot be controlled directly by the Eastland Office's senior management team. Depreciation on any property and the IT equipment used for programming and administrative purposes in Eastland will also be affected by the strong E$, which could put greater pressure on the senior management team to reduce expenditure on staffing and other costs that are directly controllable.

There could be transaction risks associated with requests for the reimbursement of costs from the parent company because the ongoing strengthening of the E$ could mean that a payment to cover, say, the previous month's running costs could prove insufficient to cover the following month's operations. The need to request supplementary payments or to recalculate the amount due in W$ could further encourage dysfunctional behaviour by the senior management team

The local management team will also be concerned about the translation risks associated with the overall impact of currency gains and losses on the Group's consolidated financial statements. The Pixlwizz Group already has a debit balance on its currency reserve and any further decline could discourage the local managers.

The currency risks associated with the overseas office operating costs should be managed by internal hedging. External hedges based on financial instruments tend to be better suited to relatively short-lived risks such as transaction risks on receivables and payables. A natural hedge would enable the risks to be managed in an effective manner without necessarily incurring any significant costs, other than management time associated with maintaining the hedge. One possibility

would be to evaluate the historical relationships between the currencies of Eastland, Southland and Northland. In an ideal world, they may tend to move in opposite directions, which would reduce the overall impact on the Group. Any offsetting trends would be sufficient to reduce the overall risk, even if it is not eliminated entirely.

Natural hedging may also be implicit in the wider activities of the Group. For example, the Eastland Office has a secondary role of managing local advertising and promotional activities, which suggests that Eastland is a major market for Pixlwizz as a whole. Any strengthening of the E$ will boost revenues for the Group, especially if download prices are fixed in terms of E$. It could be argued that it is actually desirable to have an exposure on the Eastland Office running costs because they will naturally offset the risks associated with E$ revenues.

It should be considered whether the currency risks associated with the overseas offices are material. It may be more realistic to simply accept those risks. The current strength of the E$ can be checked for persistence by examining market-based data, such as differences in interest rates. If the market rates imply an expectation that the E$ will remain strong in the long term then that might require decisive action, such as the closure of the office. In the absence of any such evidence, the senior management teams at the overseas offices should be reassured that the currency risks will be managed by the parent company and that the local offices should focus on the quality of their programming and ignore currency.

Requirement 2 – Core values

It is unlikely that staff will actively take account of Pixlwizz's core values as defined in a formal sense in the statement of vision, mission and values when they are planning and undertaking their work. Realistically, managers and staff are likely to be introduced to the core values during a staff induction process when they join Pixlwizz and are unlikely to consider them in detail in the course of their working lives. It could be argued that these values should provide a basis for the Board to set the tone for the Group as a whole. Staff should not have to read the statement of core values in order to implement them. The core values are set at too high a level to inform operational decisions and to act as a viable basis for selecting between alternatives in programming and testing games.

It does appear that the Board has failed to make the best possible use of the core values in its strategic management of the Eastland Office. The fact that staff are not being replaced when they move on to other jobs suggests that little is being done to foster a culture of commitment in which the Eastland Office is a place where talented people wish to work. Concerns about a shrinking workforce will make it more likely that staff will leave because of concerns about job security. It also appears that teamwork is being compromised, at least in the Eastland Office, if only because work is being referred to temporary staff. If the Board does not demonstrate a commitment to the core values then there is very little chance that managers and other staff will do so.

It could be argued that the core values focus heavily on the artistic and creative aspects of designing games and so they might not be capable of specifically encouraging game development staff to test software properly. The values of imagination and innovation both suggest that Pixlwizz will concentrate on developing games that offer new features, but not necessarily that they will be free from errors. The values of commitment and teamwork are rather vague in terms of their application to specific situations and so it is difficult to tell whether they could have prevented the problem with the software. Indirectly, the latter two values might have the effect of motivating staff, but it would not necessarily boost or encourage their competence.

Section 3

Requirement 1 - Reputational risk

The most immediate challenge is in deciding whether the reputational risks affect Pixlwizz as a whole or whether they relate to specific games. It may be that gamers will read reviews and could avoid games that have been identified as being full of programming errors, but that may not have any real impact on their attitude towards Pixlwizz and its overall games catalogue. This will be a difficult challenge to overcome, but it may be possible to obtain some understanding from the analysis of historical sales data, specifically to establish whether the emergence of major programming errors has an observable impact on revenues from other games. That analysis will have to be conducted carefully because Pixlwizz's revenues are likely to fluctuate in any case, regardless of programming errors, because existing games become less popular as they get older or because competitors launch superior games in particular categories.

Gamers may not necessarily view programming errors as a significant matter when it comes to buying games. The complexity of modern software means that it is almost inevitable that there will be errors when games are launched and enthusiasts may be willing to overlook such problems in order to pursue their hobby. Pixlwizz is a major games producer despite its poor reputation with regard to issuing games with errors and so it is difficult to tell whether the company's reputation for programming errors is an issue. One approach might be to investigate whether Pixlwizz actually has a reputation for poor quality in testing games before release. It would be helpful to analyse, say, press coverage of programming errors and the number of comments on social media platforms in order to establish whether gamers appear to be informed concerning this matter.

The gaming industry possibly benefits from the fact that it can issue updates and corrections that enable defective products to be rectified by downloads issued free of charge to gamers. While gamers may be annoyed and inconvenienced when games do not work as advertised, Pixlwizz is in a position to put matters right. It is also possible that many of the errors that occur have relatively little influence on actual gameplay. For example, an unexpected change in the colour of a character's shirt when progressing through a game may go unnoticed. Pixlwizz should break down the reported errors in past games to distinguish major errors, such as those that repeatedly caused a game to crash, from minor errors that would not necessarily interfere with gameplay. The results could then be studied to determine how many of the major errors had an impact on sales.

Requirement 2 – Internal audit

Involving an internal audit will send a very clear message to game development staff that the Board takes these new controls seriously. The internal audit investigations will ensure that there is evidence of consistent compliance with the Board's requirements. The Board will then be equipped to demand explanations for any failures to comply, which will reinforce the message. The senior management teams at Eastland, the other overseas offices and the PC game department at Head Office will be particularly motivated by this investigation

because they will be held accountable for any failures on the part of their game development teams. That will encourage them to set a clear and consistent tone throughout their departments that will persist in case internal audit repeats this investigation. The threat of an audit will also help the local management teams to motivate their staff with regard to the implementation of these controls.

The audit reports will also provide the Board with an indication of the manner in which game development staff have taken to the new controls. The internal audit reports will indicate whether there have been any initial problems with interpreting the requirements and applying them in practice. The internal audit staff will provide a means by which any complaints or concerns might be communicated, particularly with regard to any compliance errors that are uncovered. That could be particularly important in the Eastland Office where the initial problems appear to have arisen because the software testing process was under-resourced. It is important for the Board to be aware of any such concerns because managers will become discouraged otherwise.

It could be argued that the involvement of internal audit could cause some resentment amongst the game development staff. The new controls themselves are effectively adding to the time and effort involved in software testing and an additional layer of tests carried out by internal audit could seem like a disproportionate response. The audit visits might create the impression that the Board does not trust the ability of game developers to write and test software properly. The Board has to strike a balance between encouraging compliance and signalling mistrust. The controls themselves are sufficient to send a very clear message to software developers that testing must be improved.

The controls themselves might not lend themselves to compliance testing. The internal auditors will only be able to check that there are checklists and instructions that appear to comply with the controls and that there is evidence that the test staff have indicated compliance. The internal auditors will be unlikely to have the required expertise to check that the tests specified under the system are sufficient or that they have been properly designed. In the worst possible case, the involvement of an internal audit will create a "box ticking" mentality, whereby programmers design a limited range of tests that can be carried out in order to satisfy the audit staff. The results of the audit work could lead to the Board being fooled into a false sense of security.

The most cost-effective approach that Internal Audit could take would be to review a sample of testing plans for games that are in development. There is no point in waiting until those games have been launched because any compliance failures will not be discovered in time to do any good.

The testing plans should be selected on the basis of the complexity of the programming challenges involved. It may be possible to base that selection on the size of the programming team or the budgeted timeframe for programming. More programming time implies greater complexity.

CIMA STRATEGIC CASE STUDY
NOVEMBER 2021 – FEBRUARY 2022
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.*
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Section 1

Requirement 1 – Suitability of in-game purchases as a strategy

Suitability should reflect the circumstances in which the strategy is being applied. As a starting point, almost 50% of the global revenue from PC-based video games is earned from the free to play model. It is logical for Pixlwizz to make the best possible use of this type of game while it remains popular because there will be synergies, such as social media posts and blogs publicising popular game types. Other game companies will promote their games based on this style of play and will reinforce overall demand for this style of MMO game.

The Kepple Kwest game has already been very successful in attracting players who are prepared to spend steadily on in-game purchases, so it makes sense to build on the success of that product. Pixlwizz has a history of creating successful franchises and launching new improved versions of existing games and it seems logical to continue to develop and maintain the popularity of this particular product. The most significant costs associated with creating the game and launching it have already been incurred and so it will be relatively inexpensive to retain it as a significant element of Pixlwizz's strategy.

Pixlwizz's vision and mission both stress the development of innovative and exciting games. That implies that the company's strategy is focused on gameplay. In-game purchases appear to be consistent with the development of exciting games that create opportunities for programmers to be challenged and to apply their skills. Games that are designed to generate revenue from in-game purchases are likely to stretch the developers' ingenuity because it is not sufficient to interest players only enough for them to buy a copy of the game. They will have to be willing to return to the game frequently over an extended period to make the game a commercial success.

It could be argued that Pixlwizz ought to offer a range of different types of games, otherwise it could be harmed by any change in players' attitudes towards in-game purchases. Players might not always be willing to pay for in-game purchases if they realise that they are spending more than they would choose to in the course of, say, a month for gameplay. At the very least, Pixlwizz should be ready to launch one or more games based on an initial purchase of a download or removable media in case in-game purchases go out of fashion.

Requirement 2 – Ethics of implementation

It could be argued that Pixlwizz's behaviour lacks integrity because the procedures for registration and for the sale of Experience Points do not appear to be completely straightforward and honest. Players are invited to register on the basis that the game is free to play and that the Experience Points that are required for progress can be earned without any financial charge. While both are true, the reality is that playing the game without purchasing Experience Points would be slow and frustrating. Presumably, players who set out to amass sufficient Points through play could change their minds once they have invested time and effort in their character because they did not wish to risk losing their characters' lives by being at a significant disadvantage to players who were prepared to pay for Points.

The manner in which the payment mechanism has been developed calls further doubt on Pixlwizz's integrity because automatic payments appear to be authorised by default. That means that players can find themselves making payments without thinking and reflecting on the amount that they are spending. The fact that there would appear to be frequent opportunities to make small purchases of 50 Cents at a time makes it easy to overspend during a compelling game.

The default setting for payments also appears to be a problem because the game appeals to children who play using accounts created by their parents and linked to their parent's credit cards. Unless parents keep all games under close supervision, it would be relatively easy for children to make purchases without first seeking parental permission or to exceed any limits set by parents. Pixlwizz could easily have dealt with that problem by requiring players to authorise payments using a password so that children could not make unauthorised or excessive purchases.

In theory, the game is free to play unless players choose to make in-game purchases, but Pixlwizz has not published any details of the expected cost to complete the game. Traditionally, gamers made an initial purchase to download or purchase a game on a cartridge or optical disc, but this model requires players to purchase an unknown number of Experience Points to complete the game. Players have no idea of the extent of the commitment that they are making when they first register and set out to complete Kepple Kwest.

It could be argued that players must apply their own due care before creating a Kepple Kwest account and that they should apply their own objectivity to the reality. Pixlwizz is a commercial organisation and there is no reason to expect the company to create and market a game that will not generate sufficient revenues to cover costs and generate a profit. Players must have agreed to

Pixlwizz's terms, even if they were presented as a "fine print" agreement. They should have taken the opportunity to acquaint themselves with the agreement.

There was already an established range of games that relied on in-game purchases before Kepple Kwest. Players are aware of the nature of in-game purchases and the need to keep them under control. They cannot complain that they have been misled by the information provided by Pixlwizz when they registered for this particular game. The temptation to play on and to invest in Experience Points should have been understood and managed by experienced players, who would have realised that they enjoy playing games.

Players should have taken greater care with their credit card details and should have avoided setting up their accounts in such a way that charges could automatically be sent to their cards. Any such arrangement could lead to credit card fraud as well as overspending and so it should have been natural to look for alternatives to automatic payments. This is particularly true for parents whose accounts were intended for the use of their children because it is unrealistic to expect a minor to be responsible for managing spending in this context.

Section 2

Requirement 1 – Controls

This refund will require software that can determine the amount due to each eligible player and make the appropriate refund to the correct credit card. Pixlwizz will have to ensure that the systems staff who maintain customers' accounts are fully briefed to ensure that the terms of the repayments are understood. For example, there will have to be a clear cut-off between Experience Points sold at the original price and those being sold at the new discounted rate. A detailed brief should be prepared before the software is written and that should be reviewed and signed off by the Chief Finance Officer on behalf of the Board so that the systems staff have an unambiguous starting point for their programming.

Once drafted, the software should be subject to a detailed logic test, possibly combining black box and white box testing. A black box test could establish whether there are any major problems with the software by using it to analyse a file of test data created by the systems staff. If the results are as predicted then the draft software can calculate the correct amounts to be refunded. There should be a separate white box review of crucial sections of the code, such as the code that ensures that the refunds are made to the correct credit card accounts, otherwise there could be fraudulent repayments.

The system should be designed to determine and total the repayments that will be made so that the overall repayments can be checked for accuracy. Pixlwizz's bookkeeping system should be able to determine the total revenue from sales of Experience Points and the total for repayment should be more or less exactly that amount. There could be small differences because of rounding errors, but they should not cause a significant difference between the system-generated total and an estimate based on past sales. The overall check will reduce the risk of a major overpayment, even though there could be a risk that the refunds will not necessarily go to the correct credit card accounts.

Pixlwizz will almost certainly have the ability to send emails to all registered players of any given game. That facility should be used to inform players of the fact that the refund will be made. The software used to process the refunds should then send a further email informing the account holders of the amount due to them and the expected timing of the payment. That information will equip the account holders to query any errors or to raise a complaint if they do not receive a refund on their credit cards. That will further reduce the risk of fraudulent diversions of repayments.

Requirement 2 – Currency risks

This is essentially a form of transaction risk. Pixlwizz has committed to making substantial repayments, some of which are fixed in foreign currencies. The total cost of the repayment in W$ could be affected by currency movements in those currency exchange rates. The first thing that Pixlwizz must do is analyse the amounts payable according to the home currencies of its players to determine the size of the risk. The amounts due should be broken down into the absolute amounts due in each currency in order to determine the risk on each. If the amounts are small then the risks might not be sufficient to merit any concern.

The first thing that Pixlwizz should consider is whether it would be possible to make the refunds in W$, which would effectively pass the currency risks on to the players. That would fix the amount payable in terms of W$ and so transaction risks would be eliminated. Pixlwizz should consider whether such an approach would create reputational problems because customers might be unhappy if their repayments are smaller than they had been expecting when converted to their currencies. Pixlwizz could start by analysing payments to determine whether the potential downside losses to customers are in any way material. It may be that customers will not regard the loss as noteworthy or they may simply be grateful to receive anything at all because the refund is essentially a goodwill gesture.

If the Board decides that Pixlwizz should retain the transaction risk then one issue worth considering is whether there is sufficient diversity in the amounts payable to create a portfolio effect between the different currencies. If the total foreign currency payment is sufficiently well spread then gains and losses on the amounts due will, hopefully, cancel out to some extent. The overall gain or loss to Pixlwizz might not be worth any real concern. It is not sufficient to analyse the total, though. Pixlwizz will have to review the historical volatility of the W$ against each currency, both to establish whether a significant movement is likely and also to determine whether currencies tend to move together with the W$. Depending on the economic relationships it is possible that the currencies will tend to move in the same direction against the W$ and so management of the risk cannot be left to the portfolio effect.

The Board might also consider leading and lagging payments based on expected currency movements, making immediate payments of any balances that are likely to increase in value, and delaying any payments that are likely to decrease. The most cost-effective and realistic way to achieve this would be to look at the market forecasts implicit in comparing spot and forward exchange rates and also differential interest rates. If the cost of buying forward is greater than that of buying on spot then it is realistic to expect the currency to increase in value. In that case, the payment should be expedited. Leading and lagging may not always be practical because creditors may be unhappy at the prospect of their payments being delayed, but that is less of an issue in this scenario because players will not be tracking their refunds in the manner of a business receivable.

Section 3

Requirement 1 – Acquisition of Klikspec

Arguments for:

The biggest argument in favour of acquiring Klikspec is the potential synergies with the existing company. Klikspec's models would almost certainly help in the development of games that lend themselves to viral marketing. Feedback from those models could lead to improvements at the design stage that will ensure that the potential is maximised. Pixlwizz could also identify games that can be marketed effectively by viral methods, which would enable it to divert marketing spend to games that are in greater need of conventional marketing.

If Pixlwizz does not acquire Klikspec then the founder is likely to sell out to a competing gaming company. If the models are effective then Pixlwizz may be at a disadvantage because viral marketing is essentially a method of persuading customers to actively engage in advertising on the gaming company's behalf. A competitor who masters this approach may find it relatively easy to attract business away from Pixlwizz.

Arguments against:

It is not entirely clear whether it is necessary to acquire Klikspec in order to develop an effective user acquisition approach based on viral marketing. Pixlwizz is already a successful gaming company and it has significant access to data relating to gameplay and the activities of the customers who have bought its games. It should be possible to use that data to create effective models that could be equally effective or even better. It may also be possible to develop competing models by recruiting former employees from Klikspec.

There is also the potential concern associated with the fact that Klikspec's founder intends to retire after a year. His loss may impair the effectiveness of the company, either because his expertise was a significant factor in the company's effectiveness or because his staff may be reluctant to stay with the company after his departure. If these issues cannot be resolved during that interim period then Pixlwizz could gain little or nothing from this acquisition in the long term.

Requirement 2 – Funding

This would be a significant transaction for Pixlwizz, raising an amount that is almost as large as existing equity and significantly greater than existing debt. If the funds are raised through borrowing, the gearing ratio will increase from $453/(1,303+453) = 26\%$ to $1,453/(1,303+1,453) = 53\%$. That is a significant increase, which may be sufficient to unsettle the markets because it may be unclear whether Pixlwizz can service such a loan. The increased gearing will make the company more sensitive to changes in operating profit. Success in developing viral marketing will be of enormous benefit, but failure could lead to major problems because the finance charges on the debt will still have to be paid.

Raising the finance through equity will reduce gearing from 26% to $453/(2,303+453) = 16\%$, which is a significant decrease. The shareholders might be unhappy to see their equity diluted to such an extent because they would not be in a position to form their own opinions about the likely success of this

investment. Such a massive switch towards equity would also mean that the company was not benefitting from the lower costs associated with debt.

Pixlwizz already has a relatively low gearing ratio, which may be attributed to the fact that the company's assets are not particularly suitable as collateral for a major loan. As things stand, PPE has a smaller book value than existing debt. Borrowing a further W$1,000 million would probably require the lenders to grant an unsecured loan, which seems unrealistic. Any existing debt covenants would almost certainly be breached by such an increase in gearing.

The problems associated with collateral suggest that debt would not be suitable, even as a means of raising some of the finance, with the remainder coming from equity. Pixlwizz will effectively be forced to use equity by default, which is not an ideal justification because it is difficult to justify a strategy on the basis that there is no alternative. The Board will have to exercise caution, otherwise, there is a risk that the directors will be accused of overspending on an acquisition that they cannot afford.

Normally, the acquisition of another company is undertaken by an exchange of shares so that the target company's shareholders become part owners of the combined entity. That approach would probably be impractical in this case because Klikspec's founder would then be left with a huge proportion of Pixlwizz's equity. Probably not a controlling interest, but enough to grant significant influence. The founder's shareholding would be too large to sell on the open market without severely depressing the share price and so he might be forced to postpone his retirement plans until he can raise sufficient cash.

Pixlwizz could raise the finance through a rights issue, which would avoid the need to grant any shares to Klikspec's founder. The rights issue would be a substantial transaction for most shareholders and that could lead to concerns about weighting portfolios too heavily in favour of Pixlwizz. The capital markets will have to have a good understanding of the reasons for this transaction and be prepared to support Pixlwizz's Board, otherwise, the rights might not be taken up because the market price could fall.

Overall, it seems as if the funding for this acquisition should combine fresh equity raised through a rights issue for part of the total, with the remainder being raised through an issue of shares to the founder. The rights issue would generate cash that could be paid to the founder for some of his holdings. That should enable him to retire at the end of the interim period without having to sell a large block of shares and potentially undermine the share price. The remaining shares will then have to be obtained through an exchange of shares, which might reassure the existing shareholders because the founder's interest in Pixlwizz will only maintain its value if the incorporation of Klikspec into the group proves effective

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Variant 3

Section 1

Requirement 1 – Advantages and disadvantages of acquisition

Advantages:

There is a significant market for games suited to handheld consoles. Revenue from such games exceeds that for tablet-based games, smart televisions and VR games. The fact that the review suggests that Skrenplae's consoles have been allowed to become outdated should concern Pixlwizz because demand for these games could contract if the hardware that they are played on does not keep up to date with trends. The fact that handheld consoles are popular with children means that games designed for those devices can be targeted at an important player demographic. If Pixlwizz acquires Skrenplae then it can invest in product development to update the console hardware and so to ensure that demand for console games software can be supported and maintained.

There would be significant synergy between Pixlwizz and Skrenplae because the knowledge of players' interests and behaviour could be utilised to develop the hardware in a manner that best supports improved gameplay. Knowledge from tracking customer accounts will enable Pixlwizz to understand the importance of, say, battery life to players and to incorporate that into hardware design. Pixlwizz will also be able to exploit marketing synergies. For example, it might release a special edition console that can be bundled with a major new game. Apart from sales of the bundle itself, the promotion and the resultant publicity will help to sell Pixlwizz games in favour of those made by rival companies such as Prantain.

Disadvantages:

The most immediate disadvantage is that Pixlwizz has no experience in the design and manufacture of hardware. It seems somewhat arrogant to believe that Pixlwizz could acquire a console manufacturer and manage the company more effectively than its existing management team, who have backgrounds in

the manufacture of electronics. Any hopes that this issue could be resolved through the retention of Skrenplae's existing staff and management could be over-optimistic because many key employees could be discouraged by the takeover negotiations and might decide to leave. At the very least, Pixlwizz will have to add additional skills to the Board in order to deal with the responsibilities associated with ownership of an electronics company.

While Pixlwizz is experienced in the development and sale of games software, it may not have a sufficient understanding of the hardware side of the business to develop new products. Skrenplae may have decided not to launch new and improved models because the technology that can be used in these consoles has reached the limits of its development potential. For example, Skrenplae's market research could indicate that children have easier access to smartphones or tablets than they have had in the past and that they prefer to play games on those devices because of convenience or simply fashion. It may be difficult to reverse such trends, even if Pixlwizz is willing to develop new and improved games to play on these upgraded consoles.

Requirement 2 – Share price movement

In an efficient market, the market price incorporates all available information into the share price in an unbiased manner. The rumours might constitute "information", even if there is no truth to them because bidders will probably pay a premium over the current market price in order to acquire a substantial majority shareholding. If a formal bid is made then the expectation that the value of the shares will increase will be confirmed and the share price might rise even further. If the rumour proves unfounded then it could still have a short-term impact on the share price because of speculative forces, with the market reacting to the possibility that some market participants will be willing to speculate on the rumours being true and so the share price will increase because of the laws of supply and demand.

The Boards of prospective bidders, such as Pixlwizz and Prantain should bear in mind that the increased share price implies that the market views the acquisition as good news for Skrenplae. It does not, in itself, imply that the successful bidder will necessarily benefit from acquiring this subsidiary because the only share price that should matter is the bidder's own. If there is an increase in the prices of companies that have been linked to the takeover rumour then the implication would be that the market believes that there are potential synergies associated with a successful bid and that the bidder has a chance to add value. That belief does not necessarily mean that the synergies will arise, but it would be an encouraging indicator that the market supports the logic behind a bid and that the bidder's shareholders are likely to support it.

Any company that plans to acquire a quoted target company should be aware of the risks of sending signals to the markets that might prove expensive. In this case, the rumours could push up the cost of a successful acquisition because they reflect market expectations of the amount that the bidder will be prepared to pay. At the very least, the bidder should consider strategies, such as acquiring as many shares as possible in advance of making a formal bid, to avoid paying the top price on all shares. Having said that, the market will respond rapidly to

any clear signal that a bid is underway, including any substantial purchases of shares.

The directors of Pixlwizz and Prantain could affect Skrenplae's share price if one company bids to take over the console manufacturer. Prantain could decide that it is undesirable for Pixlwizz to make this acquisition and could decide to discourage its competitor by creating the impression that it will make a counter bid for control. If the market believes that both companies will bid against one another then Skrenplae's share price will increase significantly and may reach a level where it would be uneconomic for Pixlwizz to proceed. It would not necessarily require Prantain to do much more than refuse to deny any intention to bid against its rival, although the markets could see through such a strategy unless Prantain demonstrated some commitment.

Section 2

Requirement 1 – Key risks

Pixlwizz could suffer serious reputational damage if it is suggested that the company is exploiting employees at a factory that is based in a low-wage country. That could lead to a loss of revenue if buyers are discouraged from its products. Any such boycott could affect all of its products, including games software because any concerns will affect the company as a whole. The fact that Pixlwizz will own the factory directly will make any apparent underpayment all the more significant because it cannot claim to have been misled over staff welfare by, say, a third-party supplier.

Arguably, the first thing that Pixlwizz should do if it proceeds with the acquisition is to announce a review of operations at the factory, including wages. It should commit itself to ensuring that all employees are paid a realistic living wage so that there are no grounds for criticism. The intention to conduct this review should be published and a credible independent observer should be appointed to comment and report on the process and the outcome of the investigation.

It will be difficult to downsize or divest the factory at any time in the future, which could prove costly for Pixlwizz in the medium to long-term. Closing the factory or making staff redundant in a low-wage country could lead to significant hardship for those who have lost their jobs, which will be highly damaging to Pixlwizz's reputation. This could mean that Pixlwizz is effectively committed to continuing with manufacturing in Eastland, even if demand for handheld consoles turns out to be disappointing or if alternative manufacturing emerges that would be more profitable.

This risk can only be addressed effectively during the due diligence process before acquisition. Pixlwizz's Board will have to conduct detailed scenario planning to evaluate the likelihood that the factory will be a successful element of the acquisition. Once the acquisition has been completed, Pixlwizz will effectively have to accept the risk of disappointing performance unless matters deteriorate to the point where the company is making losses and so can justify disposal.

The programming staff at Pixlwizz's Eastland programming centre may use any pay increases at the console factory as a basis for seeking an increase in their rates of pay. That could lead to a deterioration in morale and even the threat of industrial action at the programming centre, which could delay the completion of games and cause an increase in programming errors. The fact that any increase at the factory would have been to remedy underpayment by the previous owners would not necessarily prevent any dissatisfaction at the programming centre.

Pixlwizz should start by ensuring that there is a realistic and competitive salary scale in operation at its Eastland programming centre, taking a fair and defensible account of the local cost of living and also allowing for the qualifications and experience required of staff at different levels. That salary scale can then be used as the basis for salaries paid to staff at the factory, seeking equivalence between roles and backgrounds. That should prevent the programming centre staff from complaining that they are being underpaid in comparison to the factory staff.

Programming staff at Eastland may be concerned that acquiring this factory could affect their job security and career prospects in the medium-term because Pixlwizz's Board may feel that they have an incentive to promote handheld console games rather than games for other portable devices such as tablets and smartphones. The programming staff at the two locations may feel that they are effectively in competition for revenue from games for portable devices. There could also be concerns that Pixlwizz might reorganise its programming activities, moving work on console games to Eastland in order to improve communication with the newly acquired hardware factory.

The Board should develop long-term plans for the programming staff at both locations, making it clear that the company believes that there is a viable market for software for all of the hardware devices that are currently supported. It should also be made clear that it would be unrealistic to exchange the functions of the two programming centres because different hardware devices require different programming languages and so staff at both locations would require retraining.

Requirement 2 – Currency risks

Economic risk is basically the impact of currency movements on the present value of net cash flows. It can be difficult to measure because some of those changes can be passed on to customers or can be mitigated in other ways. In this case, labour costs are incurred in E$ and some components are purchased locally, totalling 70% of the total cost. If the E$ strengthens then the cost per unit of the game consoles will increase when the costs are converted to foreign currencies, which could lead to price increases and lost sales volume. The alternative would be for Pixlwizz to set selling prices in local currencies and accept that its profits would fluctuate depending on the strength of E$.

One of the key issues that should be considered when evaluating economic risk is the elasticity of demand for exported goods. Consumer electronics such as handheld game consoles may be sold largely by retailers and so the impact of price changes depends on the margins enjoyed by those retailers. Retailers would probably refuse to accept any price increases if their margins are tight because that could lead to little or no profit. It would almost certainly confuse consumers to change the retail price frequently in response to currency movements. Fluctuations might lead to customers deferring purchases when prices are high in anticipation of a future drop.

The nature of the volatility will also have an impact on the economic risk, depending on the frequency of the change cycle. If the currency fluctuates constantly around a mean then the changes should tend to cancel over time. Pixlwizz could consider working on the basis that periods of strong currency will be offset by periods when the currency is weak. This would be acceptable provided the cycles between high and low currency were not too long. There could also be a concern that the cycles will change or that the currency will remain high. The fact that the currency has fluctuated in the past cannot be seen as a guarantee that movements will always correct themselves in the future.

Care will have to be taken to ensure that there is no confusion over currency movements, particularly with regard to the 30% of costs on imported

components. The bookkeeping entries for those items will be complicated between the purchase and import of the components and their subsequent sale and export, and management may be concerned that it is suffering losses in some cases. The cost to the Pixlwizz group is, however, the cost incurred in terms of the initial purchase from the original supplier and the prospect of gains and losses would be related to the volatility of the supplier's currency rather than that of the E$.

Section 3

Requirement 1 – Governance challenges

The most immediate challenge is to organise the subsidiary's board so that there is no doubt as to leadership and responsibility for strategic direction. Technically, the acquisition does not directly affect the appointments of Skrenplae's current board, who will remain in post in accordance with their contracts of employment. Skrenplae's directors may not wish to remain in post, though, because the acquisition will cost them their autonomy. They will now be directly accountable to a parent company board. They may also feel that remaining in charge of a subsidiary is less prestigious and that they have to leave for the sake of their long-term career progression. Pixlwizz's non-executive chair should meet with Skrenplae's board as a matter of some urgency in order to determine what their immediate intentions are. A succession plan will have to be put in place for any Skrenplae directors who intend to leave.

The positions of any Skrenplae directors who wish to stay will have to be considered carefully and ratified appropriately. Any such directors should not be retained simply because of their wishes. Pixlwizz's nomination committee should review the structure of the Pixlwizz Board, to consider whether it would be appropriate to make a new appointment to the parent company Board. It may be considered necessary to have a director with some manufacturing experience to serve on the main Board to ensure that Skreplae's operations are integrated at a strategic level. The nomination committee should also consider whether Skrenplae's Board needs to be restructured because much of the strategic decision-making will be taken over by the parent company Board in any case. For example, it may not be necessary for Skrenplae to retain a full complement of full-time directors because the main Board can deal with strategic management of, say, finance for the Group as a whole.

Skrenplae is joining the Pixlwizz Group and so the parent company Board has a direct responsibility to ensure that the new subsidiary's operations are properly managed and controlled. The Board should consider having Skrenplae's senior management team create a briefing about the business and its current strategy. The Board should work with the management team in order to establish whether there should be a change in strategy in order to ensure the acquisition's success. The Board should also request a thorough examination by Internal Audit to review controls and to report any compliance issues or other problems to the Audit Committee. Ideally, there should be a consistent set of controls in force across the Group and so Internal Audit should also be asked to determine the extent of any adaptation to Pixlwizz's existing rules that will be required to cover any specific matters required by Skrenplae. The Board should then ensure that any changes to the control system are communicated positively, so that staff are made aware that they have the Board's support and so compliance is mandatory.

Pixlwizz's Board has a duty to maximise the shareholders' wealth. Pixlwizz's share price will reflect market expectations concerning the acquisition, which would have been informed by the Board at the time of the acquisition. The Board has a duty to ensure that the synergies and other benefits that were promised in advance of the acquisition are delivered, otherwise the market will be disappointed and the share price will fall. Prior expectations will allow for the

possibility that some expectations cannot be met, but the Board should do its utmost to achieve and, if possible, exceed the benefits that were announced during the acquisition process. Apart from maintaining the share price, any failure will undermine confidence in the Board's competence and integrity because it may create the impression that the Board exaggerated the potential benefits to be obtained from the acquisition in order to expand. In the event of any unavoidable disappointments, the Board should take care to ensure that the facts are reported promptly and accurately.

Requirement 2 – Minority shareholders

The minority shareholders have a high interest in Skrenplae as an entity because they chose not to accept an offer that was generous enough to attract the vast majority of the shareholders. They may be motivated by the fact that most of the minority are employees of Skrenplae and so they may wish to retain their shares to protect their jobs or because they have a direct interest in Skrenplae as an entity. The Board of Pixlwizz should investigate the interests of these people in case their refusal to exchange their shares was motivated by a concern that could affect the management of Skrenplae.

Arguably, Pixlwizz's Board has no direct responsibility to Skrenplae's minority shareholders. The Board has no direct duty because none of the members are employed by Skrenplae. There could, however, be ethical concerns associated with managing the subsidiary because the needs of the Group as a whole could prove harmful to the minority. For example, the Group should consider whether it needs to compensate Skrenplae for the use of any resources in case the minority shareholders feel that their interests are being abused. If the Group Treasury uses any cash surplus belonging to Skrenplae then it should pay interest on the amount taken.

The minority shareholders have relatively little power. It is unlikely that Skrenplae will remain a quoted company in its own right because there will be very little liquidity in the shares. If Skrenplae is quoted then the minority shareholders could force the price down to a disproportionate extent by selling some of their holdings, thereby causing the market to react to an unexpected transaction. It is unlikely that Pixlwizz would be concerned about any such volatility because Skrenplae's share price is irrelevant to the Pixlwizz Group. The only real concern is Skrenplae's contribution to the operation.

The position of the minority shareholders is likely to be strongly entrenched because they are both employees and shareholders. They may behave as if the dual association with the company gives them additional rights or powers. The Pixlwizz Board should take care to clarify that they will not grant those individuals any specific privileges as either shareholders or employees, otherwise there could be confusion in the minds of parent company shareholders or elsewhere in the Skrenplae workforce. Once that has been communicated, the Board should insist that any requests made by these individuals as employees should be through the established management hierarchy and anything as a shareholder should be through Skrenplae's Board.

CIMA STRATEGIC CASE STUDY
NOVEMBER 2021 – FEBRUARY 2022
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

Requirement 1 – Managing stakeholders

As always, the starting point would be to identify stakeholders who have both high interest and high power because they are the key players. That might require some particular thought.

<u>Gamers</u>

Gamers are the most important stakeholders in this case. They have significant power because the breach may make them decide to cancel their accounts rather than risk suffering fraudulent credit card charges. They also have high interest because this breach will be a source of inconvenience and even some stress. Gamers will not wish to spend time checking their credit cards frequently in order to ensure that all charges are valid. They will also be concerned that any charges they do find will prove difficult to reclaim from their credit card companies.

Pixlwizz should manage gamers' concerns by sending clear and constructive guidance on how to check their credit card accounts for fraudulent charges and on how to proceed if there is a problem. Doing so will reduce the risk that gamers will be concerned by unauthorised and unhelpful news reports and posts on social media. Such a message will also reassure gamers that Pixlwizz is aware of their concerns and that it is acting to resolve the problems created by the breach.

Pixlwizz should then study statistics relating to account changes and closures during the first few days after the announcement of the breach. Many gamers may be keen to retain their gaming accounts because they enjoy online gaming. It is maybe unwise for Pixlwizz to make too many public announcements or to send too many messages to gamers because this story may quickly be forgotten in the natural course of events.

<u>Credit card companies</u>

Credit card companies will have a significant amount of power in this case because they have the right to dispute any claims for reimbursement if cardholders believe that they have been defrauded because of this data breach. If the credit card companies refuse to cancel charges to customer accounts, then concerns about the breach will escalate and the matter will remain newsworthy. It is also very likely that gamers will consider closing their accounts in order to prevent the prospect of a significant loss through fraud.

Pixlwizz should start by working with the major credit card companies to estimate the likelihood of them taking a hard line over claims arising from the breach and also to establish whether there is anything that might be done in response. The credit card companies' motivation is complicated by the fact that almost any online retailer or service provider could create similar risks. This threat is not unique to gaming companies. It is not in the credit card companies' interests to discourage online sales because they would then lose significant revenues themselves.

Pixlwizz should seek to support the credit card companies in their efforts to resolve the risks arising from the breach. For example, it may be possible to speed up the process of warning gamers and passing on helpful information, such as creating specific mailing lists of customers who might have been affected. Pixlwizz may also be able to reinforce any advice given by the credit card companies, thereby making gamers more likely to comply with the advice. That should reduce the risk that advice issued by the credit card companies is ignored by gamers who are concerned that any messages have been created by the hackers who are responsible for the breach.

<u>The gaming industry</u>

Pixlwizz is not the only company whose gamers' data could have been compromised. The various gaming companies could have been affected by this breach in different ways and to different extents. If some companies are unaffected then they might be tempted to publicise that fact in a way that harms the companies that are. In the worst possible case for Pixlwizz, a major competitor could gain business by implying that its systems are more secure and so encourage gamers to close their Pixlwizz accounts in favour of, say, Prantain.

Pixlwizz should take the initiative to contact its competitors and to seek agreement that it would not be in the interests of the industry as a whole to imply that security and privacy are concerns for gamers. Ideally, the competing gaming companies should collaborate to provide sensible and constructive advice to all gamers. The least possible emphasis should be placed on the companies whose gamers have been affected once that information becomes available.

The industry as a whole should seek to meet with the senior management team at Cloudbor once the initial cause of the breach has been discovered and a response is in place. The gaming companies should demand details about Cloudbor's plans to ensure that this breach does not recur, and they should make

it clear that they will seek an alternative if no satisfactory assurances can be given.

Requirement 2 – Accepting responsibility

From an ethical point of view, Pixlwizz may have been guilty of passing on details to Cloudbor without taking adequate steps to ensure that gamers were aware that it intended to do so. It is commonplace for software companies to ask prospective users to accept terms and conditions that are described in such detail that it is unrealistic to expect them to read those documents before accepting them. In this context, it could be argued that Pixlwizz has a responsibility because the trust placed in Cloudbor was a significant element of the terms and conditions and gamers might argue that greater prominence should have been placed on that fact.

Regardless of whether Cloudbor's involvement had been made explicit, it could be argued that gamers would have trusted Pixlwizz to select a safe and secure provider for online gaming services. It is unlikely that gamers would have sufficient knowledge to evaluate the security of Cloudbor's systems and they would not have had the ability to access those systems or to make enquiries. Pixlwizz was aware that its customers would be relying on its recommendation for a suitable gaming environment and so it could be argued that Pixlwizz should do whatever it can to assist in resolving the concerns arising from Cloudbor's breach.

It could be argued that Pixlwizz should have sought assurances from any service provider such as Cloudbor and should have been entitled to rely on those assurances. Pixlwizz would have been able to make a realistic assessment of any claims that service providers are safe and secure and so it would be reasonable to argue that it had been entitled to rely on those assurances. Cloudbor should be held accountable for fulfilling any commitments that it made to Pixlwizz and should aim to resolve any problems arising from any failure to comply.

It could also be argued that Pixlwizz cannot be held responsible for data breaches unless they are the direct result of incompetence or carelessness. Realistically, hackers will always have the advantage of breaching security systems and so it is impossible to guarantee that users will never be affected by data breaches. From a commercial point of view, it is reasonable to expect Pixlwizz to offer gamers some support in the event of problems, but it would be excessive to expect Pixlwizz to accept full responsibility.

Section 2

Requirement 1 – Acquiring Cloudbor

Acquiring Cloudbor is a potentially strategic investment because Pixlwizz will then have control over the infrastructure required to generate revenue from online games. This is already a significant element of Pixlwizz's business, but it is also a growing one and so it is crucially important to ensure that it remains open and accessible to the company. Maintaining control would prevent the introduction of changes that might create problems for games that are under development or that might render future games unplayable. It will also give Pixlwizz the ability to manage and control security, thereby enabling it to reassure gamers that their personal data is secure and unlikely to be interfered with.

Controlling Cloudbor will also give Pixlwizz insights into the activities of any competing gaming companies that continue to use the infrastructure for their online gaming needs. Pixlwizz would have access to competitors' data without having to divulge information about its games. It would be necessary to have such access in order to manage gamers' accounts and their access to games. That might make it easier to gain an overview of the relative success of different styles of games and the commercial implications of different game features. Acquiring control would also deny competitors the opportunity of obtaining that same advantage over Pixlwizz.

Taking control of Cloudbor could prove a major distraction from Pixlwizz's core business of developing and selling games. This is not an area in which Pixlwizz has any particular expertise, otherwise it might have created its own online systems rather than outsourcing that activity to Cloudbor. It will probably have to continue to adapt its systems to meet the needs of other gaming companies, if only because competition law might prevent Pixlwizz from restricting Cloudbor to its own games. Pixlwizz would also have to accept responsibility for the security of gamers' account details, leaving the company open to the risk of criticism if there was a security issue, which could prove highly embarrassing if it had previously claimed that security would be enhanced and that the breach would never recur.

There is a significant risk that other gaming companies will be reluctant to continue to use Cloudbor if it is under the control of a competitor. In the short term, they may have little choice other than to accept this, but in the longer term they may switch to a competing service or they may make their own arrangements. Pixlwizz could acquire Cloudbor at a price that has been based on the expectation that historical revenues would be maintained and so any such loss of business could mean that Pixlwizz was effectively overpaying for the company. There is also a risk that any newly-created companies offering this service could use more up-to-date technology that might enable faster downloads and make Pixlwizz games less attractive to play.

Requirement 2 – Share price

In an efficient market, the share price will reflect all information that is known about the company. One interpretation of that is that Cloudbor's share price has decreased because the company is in serious difficulties. If any such assumption is correct then the acquisition of Cloudbor could leave Pixlwizz exposed to

serious problems that the market has responded to. Pixlwizz's shareholders could regard the decision to acquire a company that was in obvious distress as foolish and so it could have an adverse effect on the Board's credibility. Arguing that any such fears are misplaced is likely to push up Cloudbor's share price and so would make the acquisition more expensive.

The decrease in the share price is likely to be a temporary phenomenon, at least in part. The data breach will lead to significant uncertainty about lost revenue and potential penalties that could be incurred. The market price will reflect those possibilities in an unbiased manner, but speculative forces could place greater emphasis on the downside risk. As time passes and the outcome of the breach is clarified, the uncertainty will be resolved, which will hopefully lead to an increase in the share price. If Pixlwizz acquires Cloudbor while the share price is depressed by speculative concerns then it will effectively be buying the company at a discounted price that reflects the risks that it faces. Pixlwizz could overpay because of this.

The decrease in the share price could reflect future operating cash flows, which could have a bleak future because of concerns associated with the data breach, but those concerns may not particularly affect Pixlwizz. For example, the possible loss of gaming companies would be almost irrelevant given that Pixlwizz has the ability to direct all of its online gaming activities to Cloudbor after the acquisition. Cloudbor will still have the same physical assets, intellectual property and staff as it had before and so the factors that drive the company's fundamental value to the Pixlwizz Group are not affected. It may be cheaper to acquire Cloudbor as a going concern than it would be to create an infrastructure company from scratch.

Regardless of the speculative pressure on Cloudbor's share price, the market will respond positively to any suggestion that a buyer has emerged. The market price will reflect the maximum that it is believed Pixlwizz would pay to acquire the company. Logically, there is little point in selling the company for less than Pixlwizz would be willing to pay. Thus the decreased share price could have no relevance to the decision to acquire, other than allowing for the possibility that some of the necessary shares could be acquired without raising any suspicion that a formal offer will be made. Pixlwizz might, therefore, devise a strategy for acquiring as many shares as possible to benefit from the depressed share price as part of its overall investment decision.

Section 3

Requirement 1 – Ethics

There is a potential conflict of interest implicit in the planning and conduct of this investigation, which could cause a breach of objectivity. The audit team will be aware that any serious weaknesses that they uncover could lead to the loss of revenue from Cloudbor and so the audit staff could choose to overlook some problems. Auditing requires professional judgement and the subjective evaluation of findings and so there could be scope for the audit team to choose which results should be included in the final report and which might be excluded because they are considered "misleading". The audit team could perceive some pressure to exclude issues from their final report to avoid upsetting the Board.

There could be issues relating to confidentiality associated with this investigation. The audit team would be accessing details of business being undertaken by other gaming companies and personal details relating to their gamers. The terms of any agreements with these third parties would undoubtedly grant access to Cloudbor's internal audit staff, but would not necessarily extend to auditors from other companies. It may be necessary for Cloudbor to alter its terms and conditions to ensure that audit staff from the new parent company can conduct such an investigation, which could delay the completion and the timing of the work. Alternatively, it may be necessary to have Cloudbor's internal audit department conduct the audit on behalf of the parent.

Making explicit statements that Cloudbor's systems are secure could be regarded as a breach of integrity. The fact that no weaknesses could be detected does not mean that the system is free of vulnerabilities. The audit work can only check for the existence and operation of controls that are known to be necessary. The audit staff cannot be expected to be aware of every possible method used by hackers to breach system security and so even a full and detailed internal audit cannot be guaranteed to identify every exploitable weakness. There is also a possible concern arising from the fact that the report will imply that the system is secure, even though weaknesses could arise soon after the audit and so the report could be outdated even by the time that Pixlwizz's Board releases the findings.

Requirement 2 – Compliance investigation

The audit investigation should be planned, to determine the amount of staff time to be allocated to the investigation and the deadline for reporting. Setting a time budget is a good way for the Audit Committee to communicate the depth of audit that is required. The leader of the audit team should meet with the convener of the Audit Committee in order to discuss the objectives of the audit and the extent to which those objectives can be met in the time allowed. It may be necessary to allow for some flexibility to ensure that the Audit Committee's requirements can be achieved in the available time.

The first step is to identify the controls that are to be the focus of the investigation. There is no point in checking the operation of controls that serve little or no purpose. The audit team should review the systems manuals in place at Cloudbor to identify those that are designed to ensure that the system is secure and well protected. The audit team should consider doing so by considering how

a hypothetical intruder would attempt to gain unauthorised access, drawing upon the latest information that has been published for security professionals. If there are any gaps in the system then they should be remedied before the audit commences. Otherwise, the key controls ought to be highlighted for review.

The controls should then be reviewed to decide how the operation of each might be tested. That will reflect the nature of the controls themselves. For example, programmed controls might be tested by a variation of black-box testing, such as inputting an invalid password to check that the system rejects it and blocks further attempts after a specific number of unsuccessful attempts. Controls that rely on human activity might be tested by asking questions, observing behaviour or by examining documents, such as signatures on reports to acknowledge having read them. The auditor should take care to minimise the risk of misleading test results by, for example, asking open-ended and indirect questions when talking to staff rather than asking for yes/no answers that would signal the answer that is being sought.

The results of tests should be reviewed, with a view to establishing the potential materiality of any adverse findings. For example, software failures are likely to recur consistently and repeatedly, but that does not necessarily mean that the resulting weakness is significant. The audit team should consider whether any such failure could leave room for an exploitable weakness before flagging the failure as a serious problem. For example, it may not matter that intruders can, say, read an online newsletter without inputting a valid password. In the case of human-based controls, the materiality may be more difficult to evaluate, but the auditor should allow for some threshold of default before flagging the control as inoperative. For example, if a manager is supposed to read and sign a daily activity report and the auditor discovers an unsigned report then it may be appropriate to extend the sample in order to check whether this was an isolated incident.

Finally, the audit team must draft a formal report that can be submitted to the audit committee and will provide a formal record of the work that has been done and the associated results. The report should summarise the aims and objectives of the investigation and should outline the work that has been done. That should be in sufficient detail to enable the Audit Committee members to understand the findings but without burdening them with excessive detail. The findings should be described in some detail so that the Audit Committee can decide whether there is a problem that requires intervention. The report should also include a response from Cloudbor's management team to any points raised. Allowing them to review the findings and to have their responses included will make the audit less threatening and so should enable the investigation to be more effective.

CIMA STRATEGIC CASE STUDY
NOVEMBER 2021 – FEBRUARY 2022
EXAM ANSWERS

Variant 5

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>
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Section 1

Requirement 1 – Implications of working with Sporttinn

The Johnson and Scholes model offers a basis for comparison, although alternative approaches could be pursued.

From a suitability perspective, Sporttinn is already active in the market for online tournaments and so its managers should know how best to promote such events and also how to deal with the potential pitfalls. Sporttinn is a recognised brand in this market. It will also have contact details for spectators who have paid to watch past events and who are interested in this form of entertainment. Pixlwizz could benefit from Sporttinn's experience because it has no experience of attracting paying customers to watch other people playing video games.

From a suitability point of view, Pixlwizz will benefit from 100% of the revenues if it organises its own tournament, but it will also be responsible for the costs of organising and promoting the event. It may be difficult to determine whether it will be more profitable for Pixlwizz to act independently. It is important for the tournament to be a success because there will be various synergies associated with a successful tournament, such as increased publicity for Shooot!, which could stimulate sales. Those synergies may be at greater risk if Pixlwizz conducts its own tournament and risks failing to attract viable numbers of contestants and spectators.

From a feasibility point of view, Sporttinn has already demonstrated the ability to host an online tournament. That is likely to be a complicated undertaking from an IT point of view because there will be large numbers of players in competition during the early stages of the tournament and suitable network connections will have to be made available. The company will have to stream the audio and video from those games in broadcast mode and that will be complicated by the fact

that the number of matches will decrease as the competition progresses, but more spectators will wish to watch each match.

Pixlwizz would have to ensure that it had the necessary technical ability and bandwidth to host this tournament by itself. That could prove a challenge because it would be necessary to plan to accommodate the most optimistic estimates of player and spectator numbers, which could involve investing in an additional capacity that may prove unnecessary. The alternative would be to restrict numbers, which might mean that the tournament fails to live up to its potential. 'Bearing in mind that Pixlwizz does have experience in hosting online gameplay, it should therefore be capable of dealing with most of these challenges'

From an acceptability perspective, the stakeholders will probably be more interested in the final outcome rather than the prospective risks and rewards. Pixlwizz's Board will be able to control the narrative when announcing and promoting the tournament regardless of who organises it. Gamers, spectators and shareholders will be interested in the opportunity to play, watch or profit from the tournament and they will not necessarily be aware that the Board had an alternative when they decided to use Sporttinn or conduct the tournament in-house.

Using Sporttinn will reduce the risk of Pixlwizz's Board being blamed for any major problems that arise during the tournament. In the worst possible case, any serious issues can be blamed on Sporttinn and the decision to use them can be justified based on Sporttinn's experience. The risk is also minimised because Sporttinn will be responsible for the organisation and funding of the tournament and Pixlwizz will be entitled to a share of any revenues that arise. The only concern is that if the tournament proves successful then the shareholders may be unhappy that a third party was involved when hindsight will suggest that Pixlwizz could have made a bigger profit by making its own arrangements.

Requirement 2 – Currency risk

There will be an economic risk arising from the fact that fixing ticket prices in terms of E$ could have an impact on demand from potential spectators who do not live in Eastland. The concern would be that sales could decrease because of a strengthening of the E$, which will have an adverse impact on Pixlwizz's share. The significance of that impact will depend on the final cost to watch the tournament and the elasticity of demand. If the cost of watching the tournament is only a few E$ then the effect of any strengthening could be to increase prices by just a few Cents, which may have very little effect on whether spectators are prepared to pay to watch. That strengthening will also have the effect of increasing the value of any E$ remittance to Pixlwizz when it is converted to W$ and so the impact on demand may be mitigated.

There could also be a transaction risk associated with the receipt of the sums due from Sporttinn because there will undoubtedly be a delay between Sporttinn receiving cash and Pixlwizz being paid its share. During that time, any movement in exchange rates could impact the value of Pixlwizz's receivables. The risk can be mitigated through the use of a forward sale of the E$ or the use of some other financial instrument to fix the value of W$. It is also worth considering the sum due in the context of Pixlwizz's overall business activities. For example, there

may be E$ payables arising from the operation of Pixlwizz's Eastland Office, which will tend to create a natural hedge for any receivable from Sporttinn. It is also to be hoped that the receivable will not be left outstanding for an excessive length of time and so the overall exposure should be minimal.

Section 2

Requirement 1 – Key stakeholders

Key stakeholders will generally have a high interest and high power.

Gamers and spectators have high interest because they have paid to participate in the tournament and have received nothing in return. They may withdraw their support for a rescheduled event because they may have lost interest or they may have made their plans around the original dates. Pixlwizz should aim to keep these participants informed, even if the only available information is a deadline by which the revised dates will be announced. Pixlwizz should also take care to manage any repayments requested by participants promptly and without undue complication so that there are no concerns about supporting future events.

The press, particularly the gaming press, will have an active interest because of its desire to cover this significant event. The tournament itself would have been newsworthy and the disruption will make it even more interesting. Gaming magazines, whether print or online, will have the ability to influence the attitudes of the participants and other stakeholders towards their continuing interest in the tournament. Pixlwizz should make the best possible use of its relationship with the press to encourage a sympathetic coverage of this disruption. Journalists will value their contact with game developers and so they may be open to writing their stories in a manner that suits Pixlwizz's interests. Pixlwizz may also be in a position to exert some influence through its advertising budget because game magazines will be unwilling to upset a major advertiser.

Cloudbor is a key stakeholder because it may be made to look insecure because of this disruption, particularly if Pixlwizz creates the impression that the disruption was Cloudbor's fault. Cloudbor also has significant influence over the rescheduling of the tournament, possibly even the ability to prevent any rescheduling of it. Pixlwizz should develop a joint strategy for managing press releases and other announcements so that Cloudbor is aware of what is being said and how it is phrased. Both companies should proceed on the basis that the disruption was due to circumstances that were beyond their control.

Requirement 2 – Share price movement

The pattern of share price movements is consistent with the deliberate disruption of the tournament by fraudulent investors who wished to profit from foreknowledge of the failure of the tournament's opening. The pattern of small sales is consistent with someone who wished to create a short position in Pixlwizz's shares, effectively selling borrowed shares with the expectation of a fall in the share price. The sequence of small trades would reduce the risk of attracting the attention of the authorities that would arise from a single large sale. A large sale might also signal that the seller possessed specific knowledge that was not known to the market as a whole. The steady selling would still have created the possibility that the market could infer that there was "bad" news on the way and that the Pixlwizz share price was likely to fall.

The W$8 decrease in the share price, reducing the price by 15% in two weeks, is consistent with the possibility that a dishonest investor planned to manipulate the share price. In this case, that could have been through a planned attack on

the tournament, knowing that the bad publicity and uncertainty that the attack would create would drive the share price down. Taking the largest possible position in the shares would be consistent with maximising the profit from this manipulation. The further fall of W$5 after news about the tournament emerged is just a natural consequence of the tournament's failure, but the fact that the price recovered slightly would be consistent with the dishonest investor attempting to close out the short position by buying shares. If the suspicions are true then the trader will have sold some shares short for W$55 and bought them back for W$42, making a profit of W$13. The investor will now have to take care to close out the position in case the share price recovers and eliminates the profit.

The decrease in the share price will not directly affect Pixlwizz's cash flows or its operations. It could, however, have an adverse impact on the cost of equity if the capital market believes that the company is at risk of manipulation. If the share price remains depressed then it will be more difficult for the Board to justify any future rights issues in order to raise equity for expansion purposes. The share price will undoubtedly recover to some extent because short-sellers must purchase shares in the future to cover their positions and that will create some support for the share price. Pixlwizz will still suffer some loss of market capitalisation because it will have to bear the costs associated with the disrupted tournament.

The Board will have to ensure that it cooperates with any investigation required by the stock exchange. It is unlikely that it will be able to assist in the identification of the perpetrators, but there could be problems if the company is seen to withhold its cooperation. Unfortunately, the investigation could prove time consuming and disruptive. The regulators may wish the Board to consider the possibility that members of the company's staff were involved and that could be demotivating.

The stock market will be concerned that cyber-attacks could be repeated because they create opportunities for market manipulation. There could be a risk that the Board will be encouraged to take disproportionate precautions against future cyber-attacks in order to signal its competence in that area and so the shareholders could be burdened by excessive security precautions.

Section 3

Requirement 1 – Potential controls

The ability to access and copy data files should be restricted to those staff who have a specific need for such access. Other staff should be unable to make copies. Staff who have to deal with customers and customer accounts should be restricted to accessing individual accounts so that they can deal with individual queries. Restricting staff access makes it easier to carry out thorough background checks on the staff who will be granted the ability to manage data files. Restricting staff numbers also means that third parties who attempt to trick staff will have less chance of making contact with someone who could actually facilitate the data theft.

Pixlwizz should email all customers regularly with information and advice about the possibility of fraudulent emails that appear to come from Pixlwizz. It might be possible to incorporate a validity check into genuine emails, such as all emails stating the customer's first name (e.g. "Dear John") and postcode. Customers should also be warned that Pixlwizz will never seek sensitive information in emails, including credit card details and date of birth. These precautions will make it more difficult to create convincing fake emails and will also reduce the threat of customers responding to fraudulent requests.

All Pixlwizz staff should be trained in basic IT security, even if they are not directly involved in IT management. The training should be tailored to cover the threats and vulnerabilities that are relevant to their duties and responsibilities. For example, staff should be made aware of risks such as social engineering and the dangers associated with malware being distributed by email. This training will help to ensure the security of the company's systems, which could have been breached by an innocent member of staff who had been misled.

Pixlwizz should maintain robust IT controls that allow for developments in malware and cyber-attacks. The company's systems should be updated whenever new security patches or software updates become available. The company should take advice from external experts to ensure that there is a proactive response in place to deal with any emerging threats. There are "white hat" hackers who could advise and support Pixlwizz. It would be preferable to put effective precautions in place rather than reacting to attacks once they exploit vulnerabilities that the company had previously overlooked. Preventing attacks will avoid the need to repair damaged files and systems and will minimise disruption and bad publicity.

Requirement 2 – Use of internal audit

The Internal Audit Department is available to the Board to conduct investigations and reviews in any manner that the Board sees fit. The Board should have sufficient experience of working with Internal Audit and relying on their reports to trust them with this task. An Internal Audit team could be assembled quickly because the team members will already be familiar with Pixlwizz's systems and locations. There will be no need to carry out background checks or to draft contracts to ensure that the work is conducted to the Board's satisfaction. There will be a significant consulting fee, as one would expect if an external organisation was called in to conduct the investigation.

The Internal Audit Department might be used instead of asking the IT Department to investigate. Internal Audit staff will be able to maintain some distance and independence of staff when they conduct their review. IT managers might be reluctant to accuse colleagues of incompetence or dishonesty with regard to the management of customer data. Internal Audit staff are also experienced in the design of tests and identification of vulnerabilities in the system and they will be able to bring those skills to the investigation. Knowing how the system works will enable the internal auditors to design an efficient approach to the investigation that will allow for the possibility that some potential perpetrators might be eliminated from the investigation because they would not have been in a position to release the data.

Using the Internal Audit Department in this way could risk harming the relationship between Internal Audit and the IT Department, which could undermine the effectiveness of future audit work. Internal Audit generally presents itself as a constructive service and aims to reassure the departments under investigation that the aim is to assist them to comply with the rules and regulations. If internal auditors conduct a formal investigation into the possibility that a member of staff has been either incompetent or dishonest then future audits will be affected by concerns that staff are under suspicion. That risk will be even greater if the investigation into the cyber-attack leads to disciplinary action against a member of IT.

Using Internal Audit could lead to problems if the guilty party is identified and if the rules relating to criminal evidence are not properly followed. Internal audit staff are not generally experienced in conducting criminal investigations because that is generally outside of the scope of their responsibilities. Any mistakes in the manner in which evidence is collected and documented could mean that it becomes inadmissible in court if Pixlwizz wishes to have the staff member charged. It may be preferable to present the police with the initial grounds for suspicion that a member of staff behaved dishonestly in the hope that the police agree to investigate.

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

Requirement 1 – Mission and core values

Cloud gaming could be viewed as being consistent with the core value of imagination because gamers will now be free to try the different games that are on offer. Previously there has always been a cost associated with trying different games to find out whether they were enjoyable to play. Even if the cost was only W\$2 for a monthly subscription, the cost would accumulate if gamers tried several games.

There could be a counterargument that gamers will not necessarily benefit from their ability to experiment because it is possible to obtain a good idea of whether a particular game or style of game would be enjoyable to play. Gaming magazines, both online and hard copy, carry reviews of newly published games and individuals often post reviews on social media. There is plenty of information available to enable a player to judge the style of gameplay that is on offer and to reach an informed decision. Also, many gamers will likely focus on whichever game they wish to explore at any given time, progressing further into the game or attempting to improve on their best scores to date and so the ability to dip in and try games will do little to stimulate their imaginations.

Cloud gaming may create an incentive for game developers to innovate because they must ensure that gamers will wish to continue to pay their monthly cloud gaming subscription. Cloud gaming creates a risk that individual gamers will cancel their subscriptions when they complete their favourite games or simply tire of playing them. Cloud gaming will create an intriguing challenge for gamers. They will have to be able to develop new games that are similar enough to existing favourites to retain gamers, but they must be sufficiently different to avoid accusations that there is nothing new on offer.

It could be argued that the introduction of cloud gaming would do little to stimulate innovation because Pixlwizz's game developers should always be striving to introduce new games that will excite gamers. The only real difference is that there will have to be a steady output of such new and exciting games to ensure that gamers remain interested in continuing with Pixlwzz.

The core value of commitment will be consistent with cloud gaming because the need to retain the interest of gamers means that Pixlwizz cannot afford to lose talented game developers when the company is under relentless pressure to publish new games. Cloud gaming will create an incentive for Pixlwizz to ensure that the game developers are well rewarded and that they have no reason to leave and work for competing gaming companies.

There could be fears that cloud gaming is not consistent with commitment because new games may start to become more of a commodity and so game developers may feel undervalued. Previously, Pixlwizz was constantly striving to develop new games that would be attractive to gamers who would pay to play them as standalone purchases or rentals. Now, game developers' efforts will result in contributing to the maintenance of a steady stream of games to ensure that there is always plenty of variety for subscribers. There will be less scope for watching successful games develop into commercial successes.

Cloud gaming will still require the encouragement of teamwork. The need for a steady stream of playable and enjoyable games will require greater cooperation between game developers with different responsibilities. If cloud gaming requires an increase in the number of games under development then all game developers will have to ensure that key matters such as meeting interim deadlines are observed, otherwise, there could be delays. Different teams will also have to cooperate and coordinate their efforts so that a suitable range of different games is produced, allowing gamers with different tastes and interests to be able to find something new.

The game developers could start to feel reluctant to cooperate with colleagues from administration and marketing because the cloud gaming model might make certain game types less important and so game developers could face redundancy. If gamers are satisfied with a steady trickle of games in order to maintain their subscriptions then Pixlwizz may decide that some of its game developers could be made redundant.

Requirement 2 – Analyst's opinion

Niloy's role as an analyst is to study companies and to make recommendations to the investor or investors whom he is paid to advise. Niloy is an influential analyst because the Pixlwizz Board has chosen to brief him concerning the planned move to cloud gaming. Normally companies choose to brief analysts in order to avoid the uncertainties associated with the sudden announcement of information that could require time to process. If the market is taken by surprise then there could be a decrease in the share price until the uncertainty has been

resolved. Briefing analysts will permit them to offer measured advice when the announcement is made so the market will not panic.

The fact that Niloy is pessimistic about the proposal suggests that he will be reluctant to recommend the purchase of Pixlwizz shares and he might even brief clients to sell. Niloy believes that the Board is planning to do something rash and that suggests that future cash flows will be adversely affected. That does not necessarily mean that his opinion is valid, but in the short term, the Board risks a fall in the share price because of Niloy's immediate response. If the Board is confident in cloud gaming, then that decrease will be corrected if the Board's optimism is justified because cash flows will exceed the market's expectations.

Niloy will have to be careful about offering trading advice while he is effectively in possession of inside knowledge from his confidential briefing because insider trading is a criminal offence. That would not necessarily prevent him from offering clients advice concerning the sale and purchase of shares, without divulging the fact that he is nervous because of information that has been provided in confidence. In the short term, any sell recommendations from an analyst will have the effect of reducing share prices because the market will infer the possibility that someone has information, even if the information itself is not released.

The Board cannot discount the possibility that Niloy's concerns are based on his deep knowledge of the gaming industry. He could, for example, have been briefed by a competing gaming company that alerted him to problems with cloud gaming or the planned launch of a superior service. Niloy could not breach the confidence of other gaming companies, but he might still be pessimistic about Pixlwizz's prospects.

Section 2

Requirement 1 – Criteria for strategic choice

The suitability criterion may prove confusing because the Board appears to be proceeding with cloud gaming and it has presented a choice of two implementation strategies. The choice between partial and full commitment could be confused by the possibility that cloud gaming is itself unsuitable. If it is not suitable then the partial commitment approach may appear to be suitable simply because it involves less of a change and leaves elements of the previous business model in place. The Board could address that concern by adopting a "do nothing" option to be evaluated alongside partial and full commitment.

Evaluating suitability is further complicated by the fact that cloud gaming will change the manner in which gamers play and also how they perceive value from the products that they buy. It will be difficult for Pixlwizz to determine how gamers will respond to either of the choices because there may be little point in seeking feedback from gamers unless it is clear that they have made informed choices about the alternatives. Asking gamers to participate in market research such as surveys and focus groups could produce misleading responses because they will not necessarily know how they will respond if cloud gaming is introduced. It will be further complicated by the fact that it may be necessary to withhold key information from gamers because they are likely to object to the fact that Pixlwizz plans to charge as much for the partial commitment as for the full, even though the latter includes four times as many games.

The feasibility criterion is complicated by the fact that a significant amount of work will be required in order to successfully launch cloud gaming and it may be difficult to tell what resources will be required. Pixlwizz will have to adapt at least 150 games to work in this environment and possibly as many as 600. Even if the changes are relatively small and restricted to making them accessible to account holders, there is a risk that any programming errors will discourage gamers and create bad publicity. The feasibility question is further complicated by the fact that it will have to be decided whether all games will be modified prior to the launch. It may be possible to reduce the risk of programming errors by adapting only the most popular games initially and then adding further games in stages after the launch, but that may not be satisfactory from a marketing perspective. Pixlwizz will also have to consider whether it can beat Prantain to the launch of cloud gaming, which is a further complication in addressing feasibility issues.

IT issues might also affect feasibility. Gameplay could change because of cloud gaming and Pixlwizz may be unaware of the need to address those changes. For example, gamers might spend more time dipping into the many games on offer in order to decide whether they are of interest to them and so there could be bandwidth issues. The fact that Pixlwizz uses Cloudbor to host its games means that it will have to depend on that third party to resolve any IT issues that crop up.

Acceptability may be complicated by the fact that different stakeholders may be affected in a variety of different ways. Gamers may be unhappy that they are being asked to commit themselves to a significant monthly subscription in order to play their favourite games. The cost of gaming could increase significantly for those gamers who restricted themselves to a single game subscription costing W$2 per month. Accessing that same game will now cost W$25 per month. Gamers might not wish to play a wider selection of games and so their response might simply be to find a more cost-effective alternative. Conversely, gamers might be encouraged to spend more time playing games, which could prove harmful to gamers who, say, neglect their schoolwork. Again, that could lead to cancelled subscriptions if parents react.

The shareholders may be doubtful as to whether this new strategy will prove effective. They will react badly if the share price decreases because of concerns about its viability. It will be difficult to predict the likely impact of the change on share prices because they are a matter for the collective opinion of the stock market. No individual can be asked. The Board may have to rely on the shareholders' patience, which could be a concern if that had an impact on job security or directors' remuneration.

Requirement 2 – Method of funding

Pixlwizz's gearing ratio is presently 453/(1,303+453) = 26%, which is a moderate level of borrowing but not excessive. Borrowing the W$600m will increase gearing to 1,053/(1,303+1,053) = 45%, which is high and is certainly a significant increase. Issuing shares will reduce gearing to 453/(1,903+453) = 19%. Debt is generally cheaper than equity, both in terms of the finance charge paid to providers and the available tax relief, so there is no problem in having a moderate gearing ratio, but borrowing the funds could be viewed as unacceptably risky.

The fact that Pixlwizz is making a significant investment in a high-risk project could be a good reason to be nervous about increasing gearing any further. The loan interest will have to be paid, even if there are problems with revenues thanks to reluctance on the part of gamers to commit themselves. If gamers decide not to keep their subscriptions then Pixlwizz could struggle to service the loan and that could put the company in severe difficulty.

Pixlwizz has relatively few assets against which to secure existing debts. Property, plant and equipment are less than borrowings and many of those assets will be in the form of computers that might have little resale value. The additional borrowing will be spent on commercially sound activities, but they will not add to the security that can be pledged to lenders. It may be impossible for Pixlwizz to borrow the amount due because of its inability to provide security or it may be close to covenants limits on existing debt.

The timing of the cash requirements might be an issue because a rights issue will take some time to organise and that could delay work commencing on the programming and promotion. Loan negotiations may be time consuming, but they are unlikely to take as long as a share issue. That could be a major problem

because it could put Pixlwizz behind Prantain if it launches its own cloud gaming service.

Section 3

Requirement 1 – Ethics concern

There are two specific accusations that Pixlwizz has behaved unethically, and both require a separate response.

The fact that the cost of gaming has increased significantly for many gamers could be viewed as a lack of integrity on Pixlwizz's part. Many of those gamers will have invested time and effort, as well as their W$2 monthly subscriptions, in specific games that they expected to be able to play to their conclusion or until they are tired of them. The concern is that Pixlwizz may have created an implicit bargain with those gamers that their access to their favourite games could continue into the indefinite future. The gamers are likely to feel misled because they would not have committed themselves to those games and so would not have paid Pixlwizz W$2 per month to play them if they had known that the terms of access were going to change so significantly.

It could also be argued that the concept of professional competence and due care would justify Pixlwizz's actions because the company's primary duty is to its shareholders. If Pixlwizz has a product and wishes to charge more for it in response to changing circumstances or the opportunity to generate additional revenue then it would be remiss not to do so. The shareholders would be aggrieved if the company put the wishes of gamers before the creation of profit. That is particularly so, given that there are no contractual requirements for Pixlwizz to allow gamers to continue as before. Nothing was said that implied that the company would permit this.

The question of discrimination is complicated by the fact that Pixlwizz has not made a deliberate decision to discriminate against any of its customers, regardless of their nationality. The concept of objectivity requires that decisions are not compromised or biased and this appears to be the case here. Pixlwizz has decided that it can improve its profits by charging more, knowing that doing so will mean the loss of some customers. There was no desire to prevent those particular customers from playing games, but Pixlwizz was forced to cease the sale of physical media, otherwise, it would have lost revenue from cloud gaming. It would have been discriminatory to have made different arrangements for customers based on their nationality or socioeconomic status.

On the other hand, Pixlwizz's actions could be viewed as a breach of professional behaviour because they have discredited the company's reputation. The fact that gamers from countries that cannot offer a suitable infrastructure for cloud gaming cannot access the games is a concern because that is likely to create the impression that Pixlwizz does not care about customers from developing countries.'

The strength of feeling that these actions have inspired can be gauged from the fact that the DDoS attack was designed as a protest. Pixlwizz's only response

would be to argue that most countries are working to enhance their infrastructure and so the setback will only be temporary.

Requirement 2 – Non-executive

Appointing an additional Board member to provide oversight of cybersecurity will demonstrate a commitment to preventing a recurrence of the attack. That will certainly reassure the shareholders and may help to maintain the share price. Arguably, it will do little to reassure the gamers whose access to the cloud gaming site has been interrupted because they are unlikely to pay direct attention to governance issues. The senior management team will be motivated by the appointment because they will realise that the Board as a whole is now taking an active interest in cybersecurity.

It might be more effective to appoint an executive director of cybersecurity because such an appointee would be able to take an active role in the management of security and in managing staff. A non-executive would be expected to assist the Board and would provide some oversight, but would not necessarily be expected to take an active part in the management of security. It is, however, appropriate for non-executives to contribute knowledge, experience and contacts to the company. The new director might act as a resource for the Board and senior management. Acting in such a capacity might also help the Board to ensure that senior management are being challenged in terms of major issues such as keeping up to date.

The appointment could prove confusing because Pixlwizz already has both a risk and an audit committee comprising non-executive directors and so the question arises as to the role that the new appointee will play. There could be confusion unless the appointee is to be appointed to both of those committees and to ensure that their activities are properly coordinated. Certainly, having the non-executive pull the two committees together would help to ensure that nothing was overlooked because members of the two committees were of the opinion that their counterparts would deal with any issues. It may also be useful to offer those committee members the support of an expert in the field of cybersecurity because none of the present members have had any background in that field.

There is a danger that the appointment will create an excessive emphasis on cybersecurity. While the DDoS attack was disruptive, it was a relatively isolated occurrence. Excessive attention paid to security might distract from the real business of earning revenues from gaming. The important thing is for Pixlwizz to learn from the breach and to take active steps to prevent a recurrence. The Board appointment might leave stakeholders with the impression that further attacks are imminent.

Strategic Level Case Study November 2021 – February 2022

Marking Guidance

Variant 1

About this marking scheme

This marking scheme has been prepared for the CIMA 2019 professional qualification Strategic Case Study [November 2021 – February 2022].

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, markers are subject to extensive training and 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)	**C**	Recommend financing strategies	50 %
(b)	**A**	Develop business strategy.	50 %
Section 2			
(a)	**B**	Evaluate business ecosystem and business environment.	60 %
(b)	**D**	Evaluate and mitigate risk.	40 %
Section 3			
(a)	**D**	Evaluate and mitigate risk.	40%
(b)	**E**	Recommend and maintain a sound control environment.	60%

SECTION 1

Task (a) Evaluate José's argument that the decrease in our share price makes the problems with this game a strategic matter.

Trait			
Arguments for	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues relating to strategic management	**1-3**
	Level 2	Provides a clear discussion of the relationship between share price and strategy	**4-6**
	Level 3	Provides a clear discussion of the relationship between share price and strategy with good justification	**7-9**
Arguments against	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies non-strategic issues for share price movement	**1-2**
	Level 2	Provides a clear discussion of non-strategic issues for share price movement	**3-5**
	Level 3	Provides a clear discussion of non-strategic issues for share price movement with good justification	**6-8**

Task (b) ignoring the share price, recommend the governance role that the Board should have in the future development and testing of games.

Trait			
Board's role	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Briefly identifies board responsibilities	**1-3**
	Level 2	Clear discussion of board responsibilities	**4-6**
	Level 3	Clear and comprehensive discussion of board responsibilities	**7-9**

Delegation	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Briefly identifies management responsibilities	1-2
	Level 2	Clear discussion of management responsibilities	3-5
	Level 3	Clear and comprehensive discussion of management responsibilities	6-8

SECTION 2

Task (a) Evaluate the currency risks faced by the management team at the Eastland Office and recommend, stating reasons, how the Pixlwizz Group might centrally manage the currency risks faced by its overseas offices.

Trait			
Risks	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes some relevant currency risks	**1-3**
	Level 2	Provides a clear explanation of relevant currency risks	**4-7**
	Level 3	Provides a clear and comprehensive explanation of relevant currency risks	**8-10**
Management	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Briefly identifies how the risk could be managed	**1-3**
	Level 2	Provides a clear discussion of the management of the currency risk	**4-7**
	Level 3	Provides a clear and comprehensive explanation appropriate risk management	**8-11**

Task (b) Evaluate the argument that the Pixlwizz core values should have prevented the programming errors that occurred in the development and testing of this game.

Trait			
Role of core values	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies some relevant corporate values	**1**
	Level 2	Discusses relevant corporate values and their breach	**2-3**
	Level 3	Offers a full explanation of corporate values and how they have been breached	**4**

Pixlwizz's core values	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Relates core values to programming errors	1-2
	Level 2	Discusses relevance of specific core values to the programming errors	3-5
	Level 3	Discusses relevance of specific core values to the programming errors with good justification	6-8

SECTION 3			
Task (a) Explain the difficulties associated with evaluating the impact of the reputational risks arising from programming errors and recommend responses to those difficulties.			
Trait			
Problems with evaluation	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies problems with evaluation	**1-2**
	Level 2	Offers sound explanation of problems with evaluation	**3-4**
	Level 3	Offers comprehensive explanation of problems with evaluation	**5-6**
How to evaluate for new games	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies some methods of evaluation	**1-2**
	Level 2	Clearly explains how to evaluate	**3-4**
	Level 3	Offers clear and comprehensive explanation of how to evaluate	**5-6**
Task (b) Evaluate the arguments for and against having Internal Audit check that the new tests on game programming are operating properly and recommend the approach that Internal Audit should take to conducting compliance tests on that system.			
Trait			
For internal audit	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes the role of internal audit	**1-3**
	Level 2	Discusses arguments in favour of using internal audit	**4-7**
	Level 3	Discusses arguments in favour of using internal audit, with good justification	**8-11**
Against internal audit	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies arguments against use of internal audit	**1-3**
	Level 2	Discusses arguments against using internal audit	**4-7**
	Level 3	Discusses arguments against using internal audit, with good justification	**8-10**

Strategic Level Case Study November 2021 – February 2022

Marking Guidance

Variant 2

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How to use this levels-based marking scheme

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Summary of the core activities tested within each sub-task

Sub-Task		Core Activity	Sub-task weighting (% section time)
Section 1			
(a)	**A**	Develop business strategy.	40 %
(b)	**D**	Evaluate and mitigate risk.	60 %
Section 2			
(a)	**E**	Recommend and maintain a sound control environment.	50 %
(b)	**B**	Evaluate business ecosystem and business environment.	50 %
Section 3			
(a)	**A**	Develop business strategy.	40%
(b)	**C**	Recommend financing strategies	60%

SECTION 1			
Task (a) Evaluate the suitability of in-game monetary purchases as a strategy for generating income.			
Trait			
Past success	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identify past success in the market	1-2
	Level 2	Discusses past success in this market	3-4
	Level 3	Provides clear and relevant discussion of past success in this market	5-6
Prospects	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies mission and vision as issues	1-2
	Level 2	Links in-game purchases to mission and vision	3-4
	Level 3	Provides a clear and logical discussion of relevance of in-game purchases to mission and vision	5-6
Task (b) Discuss the arguments for and against the suggestion that the default setting in relation to in-game monetary purchases for Kepple Kwest is unethical			
Trait			
Unethical	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies ethical issues that suggest Pixlwizz has been unethical	1-3
	Level 2	Offers some justification for arguments that Pixlwizz has been unethical	4-7
	Level 3	Offers full and well-developed justification for arguments that Pixlwizz has been unethical	8-11

Ethical	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies ethical issues that suggest Pixlwizz has not been unethical	1-3
	Level 2	Offers some justification for arguments that Pixlwizz has not been unethical	4-7
	Level 3	Offers full and well-developed justification for arguments that Pixlwizz has not been unethical	8-10

SECTION 2				
Task (a) Recommend with reasons the controls that should be introduced to ensure that only valid repayments are made.				
Trait				
Processes	**Level**	**Descriptor**		**Marks**
		No rewardable material		0
	Level 1	Describes potential controls		1-3
	Level 2	Provides a clear description of some relevant and practical controls		4-6
	Level 3	Provides a clear description of a full range of relevant and practical controls		7-9
Justification	**Level**	**Descriptor**		**Marks**
		No rewardable material		0
	Level 1	Offers some justification for the controls		1-2
	Level 2	Discusses the cost-effectiveness of the controls that have been recommended		3-5
	Level 3	Offers a full justification for the cost-effectiveness of the controls that have been recommended		6-8
Task (b) Evaluate the currency transaction risks associated with the repayment proposal and recommend an appropriate response to each of the risks you identify				
Trait				
Identification	**Level**	**Descriptor**		**Marks**
		No rewardable material		0
	Level 1	Defines transaction risk		1-2
	Level 2	Discusses factors that can be used to measure transaction risk		3-5
	Level 3	Offers a full explanation of the factors that can be used to measure transaction risk		6-8

Mitigation	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Lists potential responses	1-2
	Level 2	Recommends relevant responses	3-5
	Level 3	Recommends relevant responses and offers good justification	6-8

SECTION 3			
Task (a) Evaluate the arguments for and against the acquisition of Klikspec by Pixlwizz.			
Trait			
Arguments for	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues in favour of acquisition	**1-2**
	Level 2	Offers sound justification for acquisition	**3-5**
	Level 3	Offers full and sound justification for acquisition	**6-7**
Arguments against	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues against acquisition	**1-2**
	Level 2	Offers sound justification against acquisition	**3-4**
	Level 3	Offers full and sound justification against acquisition	**5-6**
Task (b) assuming the Pixlwizz Board decides to proceed with the acquisition of Klikspec recommend, with reasons, how Pixlwizz should finance the purchase. Please ensure that you include any problems that might arise for Pixlwizz with the various methods you discuss.			
Trait			
Equity	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues relating to use of equity	**1-3**
	Level 2	Offers justification for use of equity	**4-7**
	Level 3	Offers justification for use of equity with specific discussion of implementation	**8-11**
Debt	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues relating to use of debt	**1-3**
	Level 2	Discusses problems associated with debt	**4-7**
	Level 3	Offers clear and comprehensive discussion of need to reject debt on grounds of practicality	**8-10**

Strategic Level Case Study November 2021 – February 2022

Marking Guidance

Variant 3

About this marking scheme

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Summary of the core activities tested within each sub-task

Sub-Task		Core Activity	Sub-task weighting (% section time)
Section 1			
(a)	A	Develop business strategy.	50 %
(b)	C	Recommend financing strategies	50 %
Section 2			
(a)	D	Evaluate and mitigate risk.	60 %
(b)	B	Evaluate business ecosystem and business environment.	40 %
Section 3			
(a)	E	Recommend and maintain a sound control environment.	60%
(b)	B	Evaluate business ecosystem and business environment.	40%

![CIMA logo]

SECTION 1			
Task (a) Discuss the advantages and disadvantages to Pixlwizz of acquiring Skrenplae.			
Trait			
Advantages	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies advantages of acquisition	**1-3**
	Level 2	Provides a clear and full discussion of advantages of acquisition	**4-6**
	Level 3	Provides a clear and full discussion of advantages of acquisition with good justification	**7-9**
Disadvantages	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies disadvantages of acquisition	**1-2**
	Level 2	Provides a clear and full discussion of disadvantages of acquisition	**3-5**
	Level 3	Provides a clear and full discussion of disadvantages of acquisition with good justification	**6-8**
Task (b) Explain the significance of the movement in Skrenplae's share price in response to rumours about an acquisition by Pixlwizz or Prantain.			
Trait			
Market opinion	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Summarises efficient markets hypothesis	**1-3**
	Level 2	Explains relevance of stock market opinion to decision	**4-6**
	Level 3	Offers full and well-supported explanation of relevance of stock market opinion to decision	**7-9**

Cost of acquisition	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies cost of acquisition as an issue	1-2
	Level 2	Explains need for acquisition strategy that minimises purchase price	3-5
	Level 3	Explains need for acquisition strategy that minimises purchase price with practical suggestions	6-8

SECTION 2

Task (a) Discuss the key risks (other than currency risks) that may arise from Pixlwizz having a manufacturing facility for mobile consoles in Eastland and recommend suitable responses.

Trait			
Risks	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes risks	**1-3**
	Level 2	Offers a full discussion of risks	**4-7**
	Level 3	Offers a full discussion of risks with sound evaluation	**8-11**
Mitigation	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes responses to risks	**1-3**
	Level 2	Offers a full discussion of relevant responses	**4-7**
	Level 3	Offers a full discussion of relevant responses with justification	**8-10**

Task (b) Discuss the exposure to economic currency risk that may arise from Pixlwizz having this factory in Eastland.

Trait			
Nature	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Discusses nature of economic currency risk	**1-2**
	Level 2	Discusses nature of economic currency risk in context	**3-4**
	Level 3	Discusses nature of economic currency risk in context and with good justification	**5-6**
Volatility	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes volatility	**1-2**
	Level 2	Discusses relevance of volatility	**3-4**
	Level 3	Discusses relevance of volatility with good justification	**5-6**

SECTION 3			
Task (a) Discuss the governance challenges that the Board will face after the acquisition of Skrenplae, which was previously an independent quoted company.			
Trait			
Structures	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes governance structure	**1-3**
	Level 2	Discusses changes required of governance structures	**4-7**
	Level 3	Discusses changes required of governance structures with good justification	**8-11**
Duties	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes controls and management structures	**1-3**
	Level 2	Discusses changes required of controls and management structures	**4-7**
	Level 3	Discusses changes required of controls and management structures with good justification	**8-10**
Task (b) Recommend the approach that Pixlwizz should take when managing the interests of the minority shareholders in Skrenplae.			
Trait			
Power	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes power dimension	**1-2**
	Level 2	Discusses power of minority shareholders	**3-4**
	Level 3	Discusses power of minority shareholders with clear recommendation for response	**5-6**

Interest	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Describes interest dimension	1-2
	Level 2	Discusses interests of minority shareholders	3-4
	Level 3	Discusses interests of minority shareholders with clear recommendation for response	5-6

Strategic Level Case Study November 2021 – February 2022

Marking Guidance

Variant 4

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Summary of the core activities tested within each sub-task

Sub-Task		Core Activity	Sub-task weighting (% section time)
Section 1			
(a)	**B**	Evaluate business ecosystem and business environment.	60 %
(b)	**D**	Evaluate and mitigate risk.	40 %
Section 2			
(a)	**A**	Develop business strategy.	50 %
(b)	**C**	Recommend financing strategies	50 %
Section 3			
(a)	**D**	Evaluate and mitigate risk.	40%
(b)	**E**	Recommend and maintain a sound control environment.	60%

SECTION 1

Task (a) Recommend, with reasons, how Pixlwizz should identify and manage the interests of three key stakeholders affected by this breach.

Trait			
1st stakeholder	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies ethical principle	**1-2**
	Level 2	Evaluates principle in context	**3-5**
	Level 3	Evaluates principle in context with good justification	**6-7**
2nd stakeholder	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies ethical principle	**1-2**
	Level 2	Evaluates principle in context	**3-5**
	Level 3	Evaluates principle in context with good justification	**6-7**
3rd stakeholder	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies ethical principle	**1-2**
	Level 2	Evaluates principle in context	**3-5**
	Level 3	Evaluates principle in context with good justification	**6-7**

Task (b) There has been suggestion that Pixlwizz should accept some responsibility for the identification and mitigation of the risk of the security breach at Cloudbor. **Evaluate** the arguments for and against this suggestion.

Trait			
Arguments for	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Offers arguments for accepting responsibility	**1-2**
	Level 2	Offers valid arguments for accepting responsibility	**3-4**
	Level 3	Offers valid arguments for accepting responsibility with good justification	**5-6**

Arguments against	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Offers arguments against accepting responsibility	1-2
	Level 2	Offers valid arguments against accepting responsibility	3-4
	Level 3	Offers valid arguments against accepting responsibility with good justification	5-6

SECTION 2			
Task (a) Discuss the advantages and disadvantages of Pixlwizz taking control of Cloudbor.			
Trait			
Advantages	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies advantages of bidding	1-3
	Level 2	Offers sound discussion of advantages of bidding	4-6
	Level 3	Offers sound discussion of advantages of bidding with good justification	7-9
Disadvantages	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies disadvantages of bidding	1-2
	Level 2	Offers sound discussion of disadvantages of bidding	3-5
	Level 3	Offers sound discussion of disadvantages of bidding with good justification	6-8
Task (b) Discuss the relevance of the decrease in Cloudbor's share price to our decision to acquire the company.			
Trait			
Market	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Discusses market efficiency	1-3
	Level 2	Discusses interpretation of market reaction	4-6
	Level 3	Discusses interpretation of market reaction with good justification	7-9
Implications	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies implications for decision as an issue	1-2
	Level 2	Discusses implications for decision	3-5
	Level 3	Discusses implications for decision with good justification	6-8

SECTION 3

Task (a) Assuming that the Internal Audit Department's findings from its initial study of the controls are favourable, **Discuss** the ethical implications of assuring the other game companies that Cloudbor's systems are secure.

Trait			
1st implication	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies relevant principle	1
	Level 2	Applies principle to scenario	2-3
	Level 3	Applies principle to scenario with justification	4
2nd implication	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies relevant principle	1
	Level 2	Applies principle to scenario	2-3
	Level 3	Applies principle to scenario with justification	4
3rd implication	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies relevant principle	1
	Level 2	Applies principle to scenario	2-3
	Level 3	Applies principle to scenario with justification	4

Task (b) Explain the issues that the Audit Committee should consider when commissioning the detailed compliance audit, and also the approach the Internal Audit Department should take when undertaking and reporting on its investigation.

Trait			
Design	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Explains need to design	1-3
	Level 2	Offers sound explanation of design	4-7
	Level 3	Offers sound explanation of design with good justification	8-11

Conduct	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies need to gather evidence	1-3
	Level 2	Discusses gathering evidence and reporting	4-7
	Level 3	Offers good explanation of gathering evidence and reporting	8-10

Strategic Level Case Study November 2021 – February 2022

Marking Guidance

Variant 5

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Summary of the core activities tested within each sub-task

Sub-Task		Core Activity	Sub-task weighting (% section time)
Section 1			
(a)	A	Develop business strategy.	60 %
(b)	B	Evaluate business ecosystem and business environment.	40 %
Section 2			
(a)	B	Evaluate business ecosystem and business environment.	40 %
(b)	C	Recommend financing strategies	60 %
Section 3			
(a)	D	Evaluate and mitigate risk.	50%
(b)	E	Recommend and maintain a sound control environment.	50%

SECTION 1

Task (a) Ignoring currency risks, **evaluate** the respective strategic implications of adopting Sporttinn's proposal compared to Pixlwizz organising its own tournament.

Trait			
Suitability	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies suitability issues	1-2
	Level 2	Provides a clear comparison of suitability of alternatives	3-5
	Level 3	Provides a clear comparison of suitability of alternatives with good justification	6-7
Feasibility	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies feasibility issues	1-2
	Level 2	Provides a clear comparison of feasibility of alternatives	3-5
	Level 3	Provides a clear comparison of feasibility of alternatives with good justification	6-7
Acceptability	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies acceptability issues	1-2
	Level 2	Provides a clear comparison of acceptability of alternatives	3-5
	Level 3	Provides a clear comparison of acceptability of alternatives with good justification	6-7

Task (b) Identify and evaluate the currency risks for Pixlwizz of proceeding with Sporttinn and agreeing to set all ticket prices in E$.

Trait			
Identification	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies some risks	1
	Level 2	Identifies several risks	2
	Level 3	Clear identification of risks	3

Evaluation	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Provides some evaluation of risks	1-3
	Level 2	Provides good evaluation of risks	4-6
	Level 3	Provides good evaluation of risks with sensible justification	7-9

SECTION 2

Task (a) Ignoring issues relating to our share price, **identify** the key stakeholders who were affected by the tournament's failure and recommend how we should manage their interests.

Trait			
First stakeholder	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies stakeholder	1
	Level 2	Recommends approach to management	2-3
	Level 3	Recommends approach to management with justification	4
Second stakeholder	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies stakeholder	1
	Level 2	Recommends approach to management	2-3
	Level 3	Recommends approach to management with justification	4
Third stakeholder	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies stakeholder	1
	Level 2	Recommends approach to management	2-3
	Level 3	Recommends approach to management with justification	4

Task (b) Explain whether the behaviour of our share price is consistent with manipulation linked to a deliberate attack on our tournament and explain the significance of any such manipulation.

Trait			
Consistency	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Identifies possible reasons for price movement	1-3
	Level 2	Explains consistency of price movement with suspicions of manipulation	4-7
	Level 3	Explains consistency of price movement with suspicions of manipulation with good justification	8-11

Significance	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Identifies impact on shareholders	1-3
	Level 2	Explains significance of manipulation for governance	4-7
	Level 3	Explains significance of manipulation for governance with good justification	8-10

SECTION 3

Task (a) **Recommend and justify** four internal controls that we might introduce to prevent a recurrence of this disruption.

Trait			
First control	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes control	**1**
	Level 2	Justifies control	**2-3**
	Level 3	Justifies control and explains relevance	**4-5**
Second control	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes control	**1**
	Level 2	Justifies control	**2-3**
	Level 3	Justifies control and explains relevance	**4**
Third control	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes control	**1**
	Level 2	Justifies control	**2-3**
	Level 3	Justifies control and explains relevance	**4**
Fourth control	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes control	**1**
	Level 2	Justifies control	**2-3**
	Level 3	Justifies control and explains relevance	**4**

Task (b) **Evaluate** the arguments for and against asking our Internal Audit Department to investigate and identify the person whose actions provided the attacker with the file of spectator email addresses.			
Trait			
For internal audit	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Describes the role of internal audit	**1-3**
	Level 2	Discusses arguments in favour of using internal audit	**4-6**
	Level 3	Discusses arguments in favour of using internal audit, with good justification	**7-9**
Against internal audit	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies arguments against use of internal audit	**1-2**
	Level 2	Discusses arguments against using internal audit	**3-5**
	Level 3	Discusses arguments against using internal audit, with good justification	**6-8**

Strategic Level Case Study November 2021 – February 2022

Marking Guidance

Variant 6

About this marking scheme

This marking scheme has been prepared for the CIMA 2019 professional qualification Strategic Case Study [November 2021 – February 2022].

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, markers are subject to extensive training and 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**	Develop business strategy.	60 %
(b)	**C**	Recommend financing strategies	40 %
Section 2			
(a)	**B**	Evaluate business ecosystem and business environment.	60 %
(b)	**C**	Recommend financing strategies	40 %
Section 3			
(a)	**D**	Evaluate and mitigate risk.	50%
(b)	**E**	Recommend and maintain a sound control environment.	50%

SECTION 1			
Task (a) Evaluate the arguments for and against this proposal being consistent with our core values.			
Trait			
Arguments for	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues relating to consistency	**1-3**
	Level 2	Offers arguments for consistency	**4-7**
	Level 3	Offers arguments for consistency with good justification	**8-11**
Arguments against	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues relating to inconsistency	**1-3**
	Level 2	Offers arguments against consistency	**4-7**
	Level 3	Offers arguments against consistency with good justification	**8-10**
Task (b) Recommend with reasons whether the Board should base its decision on the advice received from the investment analyst.			
Trait			
Market issues	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies analyst's role in market	**1-2**
	Level 2	Discusses possible impact on share price	**3-5**
	Level 3	Discusses possible impact on share price with good justification	**6-7**
Expertise	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies analyst's knowledge of the industry	**1-2**
	Level 2	Discusses potential value of opinion	**3-4**
	Level 3	Discusses potential value of opinion with good justification	**5-6**

SECTION 2			
Task (a) Evaluate the challenges associated with using the Suitability, Feasibility and Acceptability criteria to choose between the two alternatives. I do not need you to make the choice between the alternatives.			
Trait			
Suitability	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Briefly discusses factors in deciding suitability	1-3
	Level 2	Provides a clear explanation of the assessment of suitability	4-5
	Level 3	Provides a clear and comprehensive explanation of the assessment of suitability	6-7
Feasibility	**Level**		
		No rewardable material	
	Level 1	Briefly discusses factors in assessing feasibility	1-3
	Level 2	Provides a clear explanation of the assessment of feasibility	4-5
	Level 3	Provides a clear and comprehensive explanation of the assessment of feasibility	6-7
Acceptability	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Briefly discusses factors in assessing acceptability	1-3
	Level 2	Provides a clear explanation of the assessment of acceptability	4-6
	Level 3	Provides a clear and comprehensive explanation of the assessment of acceptability	6-7
Task (b) Recommend with reasons the most appropriate method of funding the W$600 million investment that will be required if we proceed with a full commitment to cloud gaming.			
Trait			
Current position	**Level**	**Descriptor**	**Marks**
		No rewardable material	0
	Level 1	Describes current financial position	1-2
	Level 2	Discusses relevance of current financial position	3-4
	Level 3	Offers support based on assessment of current financial position	5-6

Funding needs	Level	Descriptor	Marks
		No rewardable material	0
	Level 1	Describes funding needs based on project	1-2
	Level 2	Discusses relevance of funding needs	3-4
	Level 3	Offers support based on assessment of funding needs	5-6

SECTION 3			
Task (a) Evaluate the argument that the Pixlwizz has behaved unethically in its switch to a cloud gaming service.			
Trait			
First ethical argument and general discussion	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies ethical issue in which there is a potential breach	**1**
	Level 2	Evaluates argument	**2-3**
	Level 3	Evaluates argument with good justification	**4-5**
Second ethical argument	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies ethical issue in which there is a potential breach	**1**
	Level 2	Evaluates argument	**2-3**
	Level 3	Evaluates argument with good justification	**4**
Professional behaviour	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies ethical issue in which there is a potential breach	**1**
	Level 2	Evaluates argument	**2-3**
	Level 3	Evaluates argument with good justification	**4**
Possible effect on reputation	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies reputational issue	**1**
	Level 2	Evaluates argument reputation and professional behaviour	**2-3**
	Level 3	Evaluates argument with good justification	**4**

Task (b) **Evaluate** the arguments for and against a suggestion that has been made by our Non-Executive Chair that Pixlwizz should appoint an additional non-executive director who has a background in cybersecurity.			
Trait			
Board role	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies Board need	**1-2**
	Level 2	Discusses arguments for and against appointment	**3-5**
	Level 3	Discusses arguments for and against appointment, with good justification	**6-8**
Non-executive	**Level**	**Descriptor**	**Marks**
		No rewardable material	**0**
	Level 1	Identifies issues related to non-executive	**1-2**
	Level 2	Discusses arguments for and against non-executive	**3-5**
	Level 3	Discusses arguments for and against non-executive, with good justification	**6-8**

Strategic level case study – Examiner's report

November 21 – February 2022 exam session

This document should be read in conjunction with the examiner's suggested answers and marking guidance.

General comments

The Strategic case study (SCS) examinations for November 2021 and February 2022 were based on a pre-seen scenario that described Pixlwizz, a quoted company that creates and sells video games. Pixlwizz is one of the world's largest gaming companies.

Pixlwizz has a large base in its home country and three overseas offices, each of which has specific responsibilities for developing a particular business line and also marketing in its geographical region.

Video games require significant artistic and programming skills in their development. Games must be attractive to gamers, which requires some consideration of both gameplay and visual and aural attraction. They must also be programmed so that they operate correctly, with no serious programming errors that would affect gameplay. Many games are played online and require gamers to input personal details, including credit card information, so security is a major issue.

A total of six variants were set on Pixlwizz. The focus for each variant was as follows:

- Variant 1: A new game has been affected by programming errors.

- Variant 2: Pixlwizz is offering gamers the ability to play games online at no cost. Gameplay can, however, be enhanced through the purchase of in-game features.

- Variant 3: The Board is considering the acquisition of a manufacturer of handheld gaming consoles. Pixlwizz currently focuses on software rather than the hardware that it runs on.

- Variant 4: There has been a security breach at a third-party gaming platform that hosts online gameplay for a number of software providers, including Pixlwizz.

- Variant 5: Pixlwizz is considering organising a global games tournament that will enable viewers to pay to watch leading gamers in action.

- Variant 6: Pixlwizz is considering a new business strategy. Gamers will pay a fee that will grant access to all pay-to-play games.

All six variants complied with the published blueprint and covered the core activities in the prescribed weightings. Each variant consisted of three tasks, and each task was further subdivided into separate requirements. The weighting attached to each requirement was stated, and candidates were advised to allocate the time available for each requirement on the basis of those weightings. Markers were instructed to adopt a holistic approach to marking, which meant that the answer to each requirement was read and judged on its merits. Markers were provided with specific guidance as to the characteristics of level 1, level 2 and level 3 answers for each separate requirement.

As always, the key to achieving a passing mark or better is to answer the question as a set. This is one of the main reasons candidates fail the case study. Read the questions and the scene setting pages carefully before attempting the questions. It is also vital that the candidates understand the pre-seen material. Candidates should apply their judgement to answer the requirements as fully as possible. It is important that candidates do not produce generic answers that could apply to any industry. Candidates have a lot of information to draw on from the pre-seen material and the variants which should be used when answering the questions. Scenario-based questions often allow scope for differences of opinion, and markers are instructed to mark different approaches on their merits.

To achieve a level 3 in most traits, it was expected that a candidate would demonstrate a good technical understanding of the topic being tested through clear and logical application to the circumstances described in the scenario. It may also help to develop an argument by offering justification for any recommendations made. One way to formulate an answer to a typical requirement would be to imagine it as a task that had been set by a director who was delegating an important task.

Level 1 answers generally demonstrate either poor exam technique or fail to offer a logical response to the circumstances in the scenario (or both). Poor exam technique is generally due to not answering the question. Poor logic generally suggests that the candidate has misunderstood the scenario. For example, the specific issues arising in the case of Pixlwizz include:

- This is a highly competitive industry. Innovation is vital if customers are to be retained.

- Gaming companies depend on third parties to develop and sell the hardware that is used to play games and the online platforms that enable collaborative and competitive play.

- Security is a major issue because online games are frequently played by children and also because customers often have to provide their credit card details.

- This is very much a global industry, with games being played worldwide.

While each attribute may not necessarily inform every requirement, level 1 marks tended to be associated with a failure to appreciate the specifics of the business.

Variant 1 Comments on performance

Task 1

Task 1 begins with the launch of Mercenary Earth 4, which was released with a significant number of programming errors and has received negative feedback from gamers.

The game producer believes that his team tasked with testing the game, was under too much time pressure. The Pixlwizz share price has fallen after news of the errors.

The Non-Executive Chair believes that the share price decrease means that this is a strategic matter which should be discussed by the Board. The Chief Operating Officer believes it is an operational matter for management to deal with.

The first sub-task asked candidates to evaluate the argument that the decrease in share price makes this a strategic issue.

Level 3 responses recognised that there were arguments on both sides and presented a balanced discussion. Level 2 answers were less well developed, often only justifying the candidates' view that this either is or is not a strategic matter, without considering alternative points. Some attempted to apply models which were not appropriate in this context or focussed too much attention on share price and the Efficient Market Hypothesis. Level 1 responses often identified some relevant issues but did not provide a clear discussion.

The second sub-task asked candidates to set aside the share price movement and recommend the governance role that the Board should take regarding the future development and testing of games.

Level 3 answers recognised both the Board's responsibility and its need to delegate appropriately, for example, discussing the roles of the Board and the Eastland management, and the need for clear communication between them. Level 2 responses recognised the responsibilities of both the Board and management, but discussions were not fully developed. Level 1 answers often failed to demonstrate an understanding of the role of the Board, for example, recommending that Board members should do the testing themselves.

Task 2

In task 2, it has become apparent that the Eastland office has been under pressure to reduce costs because the E$ has strengthened. This was a factor in the reduced hours that were available to test Mercenary Earth before the games release.

The first sub-task asked candidates to evaluate the currency risks faced by the management team at the Eastland Office and to recommend how the Pixlwizz Group could centrally manage the currency risk faced by overseas offices.

Level 3 answers gave a clear evaluation of each of relevant currency risks and how they could be managed, for example, recognising that internal hedging could be appropriate. The answers showed technical knowledge and good application to the scenario. Level 2

answers were often less well applied, setting out an explanation of currency risks and explaining some hedging techniques but not focussing on points that would be relevant to Pixlwizz. Level 3 responses identified some currency risks and management techniques, but often included technical errors and tended to lack application.

The second sub-task asked candidates to evaluate the argument that Pixlwizz's core values should have prevented the programming errors.

Level 3 answers made use of the information presented in the pre-seen material and explored the company's corporate values and how they have been breached, relating specific core values to the programming and testing errors. Level 2 answers discussed the core values and their breach but did not apply this well to the programming errors. Level one responses were less well developed but identified some relevant core values.

Task 3

In task 3, candidates were provided with an extract from a magazine comparing the number of updates per game for a number of different companies and showing that Pixlwizz has the highest number of errors being corrected. The reason for this may be that Pixlwizz is more proactive than its competitors in correcting errors, but the Board wishes their game producers to develop a testing plan for each new game.

The first sub-task asked candidates to explain the difficulties associated with evaluating the impact of reputational risks arising from the programming errors and to recommend responses to those difficulties.

Level 3 responses provided a clear explanation of the difficulties in evaluating reputational risk, for example, communication between gamers online and the wide range of issues with a game that could damage Pixlwizz's reputation. Level 2 answers often focussed on what reputational risk would arise and how to mitigate it, rather than explaining the difficulties associated with evaluating the impact of the risk, as the question asked. Level 1 answers were often scant and discussed reputational risk in very general terms rather than addressing the question presented.

The second sub-task asked for an evaluation of the arguments for and against, having Internal Audit check that the new tests on game programming are operating properly and to recommend the approach that Internal Audit should take to conducting compliance tests on the system.

Level 3 answers showed a good understanding of the role of Internal Audit and of appropriate audit tests. They presented arguments against the use of Internal Audit as well as those in favour. Level 2 responses often stated that using Internal Audit would be appropriate without any consideration of arguments against this approach. Recommendations for the audit approach were often vague and lacking in detail. Level 1 answers were often very brief and did not show a solid understanding of the work of Internal Audit or how this testing should be approached.

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Variant 2 Comments on performance

Task 1

Candidates were presented with a newspaper article revealing that children can and do rack up costs via in-game monetary purchases while using "Free to Play" games published by Pixlwizz, and are asked to evaluate the suitability of those purchases as a strategy for generating income.

Level 1 responses identified that revenues from video games are heavily supported by in-game purchasing and that Pixlwizz's mission is to continue to provide immersive games. Level 2 responses went on to discuss and develop these principles and ideas and generally broadened the topic to include social media discussions with reference to other publishers in the market looking at general market trends. Level 3 responses generally showed awareness of the market and demonstrated knowledge through discussion of how Pixlwizz can energise their gameplay strategies through promoting blogs, perhaps utilising developers to develop background stories to some of the game scenarios thus making them more appealing to the players.

In the second part of the task, candidates were asked to discuss the arguments for and against the suggestion that the default setting about in-game monetary purchases for Kepple Kwest is unethical.

Level 1 responses tended to give one-sided arguments on the various elements of the situation or failed to refer back to the detail of the scenario. Level 2 answers gave a more balanced view for and against the ethical correctness of the situation, with level 3 giving good basis for judgement one way or another, usually showing that on balance there are several factors to consider before passing judgement. Level 3 answers often gave examples of other online games with on-game purchasing, highlighting that Pixlwizz is in line with industry standards and considered whether the whole industry is guilty of unethical behaviour.

Task 2

The scenario is rolled forward a month, and candidates are presented with Board meeting extracts on discussions relating to the possibility of a partial refund for in-game purchases. They are asked first to recommend, with reasons, the controls that should be introduced to ensure that only valid repayments are made.

Level 1 responses tended to keep to the bare details of the process of repayment and spoke more of the communication of the process. Level 2 and 3 candidates gave an increasing range of measures, initially over the design and creation of the software code to be developed to carry out the process, the verification and authorising of the design of this code before development so as to include anti-fraud protection and process integrity.

The second part of the task asked candidates to evaluate the currency transaction risks associated with the repayment proposal and recommend an appropriate response to each of the risks they identified.

Level 1 responses here tended to be extremely vague and thin. Many candidates failed to give any real measures to quantify or manage risks. However, Levels 2 and 3 were all reasonably strong; immediately identifying the need to measure the different currency movements over time and the amounts due as a result of the overpayments to assess the scale of issues that might be faced and so determine the size of risk being faced in each case.

Some level 2 responses considered whether the overall effect might be netted off, with losses in some currencies offset by profits elsewhere. Level 3 responses tended to further analyse whether leading and lagging might mitigate the risk of making immediate payments where increases might reasonably be expected and delaying those where savings might be anticipated.

Task 3

In the third section, the timeline has advanced two months, and candidates are presented with an email discussing the acquisition of Klikspec, a social media management company, and are asked to evaluate the arguments for and against the acquisition of Klikspec by Pixlwizz. Level 1 responses tended to be fairly simplistic, with both level 1 and lower level 2 candidates promoting the acquisition of Klikspec as providing a good basis for expansion.

Level 3 responses tended to include all of this but also considered whether the departure of the founder in one year's time would ultimately lead to the collapse of Klikspec as a valuable contributor in house partner or whether similar skills could be developed in Pixlwizz.

Finally, the last section of the paper asked candidates to assume that the Pixlwizz Board decided to proceed with the acquisition of Klikspec and to recommend, with reasons, how Pixlwizz should finance the purchase, ensuring that they include any problems that might arise for Pixlwizz with the various methods they discuss.

Level 1 responses tended to highlight factors in both equity and debt funding without appreciating any real issues or advantages presented by the details of the scenario presented. Level 2 answers recognised that the size of the transaction was very significant in relation both to existing equity and debt and that the market would need some management to address possible concerns. Level 3 responses tended to provide a more detailed approach, highlighting the difficulties presented with debt already having poor coverage for existing borrowing and thus negating possible extensions on this.

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Variant 3 Comments on performance

Task 1

Section 1 introduced candidates to a proposal to buy Skrenplae, a quoted handheld games console manufacturer based in Westland. Pixlwizz's aim was to stimulate demand for games software that runs on handheld consoles. This section was supported by a Westland Daily News report, outlining a review of a recent Prantain game release which had failed to make an impact due to the limitations of the functionality of the Skrenplae handheld console on which it was being played.

The first task asked candidates to discuss the advantages and disadvantages to Pixlwizz of acquiring Skrenplae.

Many candidates presented level 3 or strong level 2 responses to this sub-task, with many answers including a wide range of well applied and justified advantages and disadvantages. These included a clear and full discussion of advantages such as synergy between the two businesses and disadvantages such as having no experience in the design and manufacture of handheld consoles.

Weaker level 2 answers were those that identified a narrower range of advantages and disadvantages, which were less well applied or more likely to be factors that were peripheral (such as staff resistance). These answers often lacked full justification and explanation of the advantages or disadvantages identified.

There were very few level 1 responses to this task, as most candidates did make a reasonable attempt to present a good range of applied points.

The second task asked candidates to explain the significance of the movement in Skrenplae's share price in response to rumours about the acquisition by Pixlwizz or Prantain.

Level 3 responses to this task offered a full and well-supported explanation of the relevance of the stock market opinion to this decision and also considered and explained the need for an acquisition strategy that would minimise the purchase price. Candidates who presented level 3 and strong level 2 answers considered both the relevance of a potentially positive and negative reaction to this decision and also went on to consider the impact that these movements could have on the cost of the acquisition.

Task 2

Section 2 presented candidates with an extract from the minutes of a recent Board meeting, which introduced candidates to information about Skrenplae's manufacturing facility in Eastland.

The first task asked candidates to discuss the key risks (other than currency risks) that may arise from Pixlwizz having a manufacturing facility for consoles in Eastland and to recommend suitable responses.

Level 3 and strong level 2 responses to this question offered a full evaluation of a wide range of risks, which were then supported by a range of relevant and well-justified mitigations. Risks often included reputational damage if Pixlwizz was considered to be exploiting employees at a factory that is based in a low-wage country. Also, many candidates considered the potential supplier issues and potential communication issues that could occur between the console software developers based in Southland. The strongest answers also presented well-applied mitigations to the risks identified.

Weaker level 2 responses presented a narrower range of potential risks, and these were sometimes not well justified or explained. Often candidates took a PEST approach to structure their answers, which often limited the points that they then made to generic PEST factors. Mitigations were also often not well justified or not fully relevant to the risk identified. Level 1 answers were very thin and failed to recognise the difficulties of operating a manufacturing facility in another country. Weaker answers also spent unnecessary time discussing currency risks, despite being clearly told not to do so in the requirement.

The second task asked candidates to discuss the exposure to economic currency risk that may arise from operating the manufacturing facility in Eastland. There were very few level 3 or strong level 2 responses to this task, as few candidates focussed their answers on the nature of economic risk specifically. Most candidates achieved only low level 2 or level 1 scores on this task, largely driven by not answering what had been asked.

Most candidates discussed currency risks in general, presenting lengthy descriptions of transaction and translation risks, which was not what had been asked. Most answers also then went on to discuss a range of hedging techniques, which was not what was asked for. Candidates are once again reminded to read the question requirement carefully and only answer what has been asked. Knowledge dumping will score few marks.

Task 3

In Section 3, candidates were presented with a news article that detailed the 83% controlling interest that Pixlewizz had obtained in Skrenplae and some further details on the minority shareholders and their specific rights.

The first task asked candidates to discuss the governance challenges the Board of Pixlwizz will face after the acquisition of Skrenplae.

There were few level 3 responses to this task. Those that were level 3 responses presented a clear discussion of a wide range of changes needed to Pixlwizz's governance structures post acquisition, with good justification. Level 3 answers also discussed the potential changes required of the controls and management structures necessary, following the acquisition. Level 3 candidates clearly recognised that, as a subsidiary, Skrenplae would likely continue with its own board, and this in itself would likely cause some governance challenges. However, few candidates recognised this, and most assumed that the two boards would be combined.

There were several strong level 2 responses to this question, with candidates presenting a good range of controls and management activities needed post-acquisition. This included discussions of reviewing the risks and controls of Skrenplae and communicating with key stakeholders.

Weaker level 2 and level 1 responses often lacked depth and were rather generic and knowledge driven. In addition, most of the weaker answers focussed their answers too much on dealing with the minority interest shareholders, which was, in fact, the main focus of the second task in this section.

The second task asked candidates to recommend the approach that should be taken to manage the interests of the minority shareholders in Skrenplae.

Level 3 and strong level 2 responses took a well-structured approach to the task, considering the power and interest of the minority shareholders and then relevant management approaches based on this assessment. Many candidates made good use of the reference material to justify their assessment of the relative power and interest of the minority interest shareholders, specifically based on their status as employees and the level of their shareholding overall. Stronger answers presented a good range of well applied actions that Pixlwizz could adopt to successfully manage these shareholders.

Weaker level 2 and level 1 responses tended to present a narrow assessment of the power or interest of the minority shareholders. Some answers made some very unrealistic recommendations for managing these minority shareholders, such as offering them Board positions and giving them additional bonuses or preferential employment terms. Weaker answers also failed to focus on their position as employees and the specific issues this could create in managing them effectively.

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Variant 4 Comments on performance

Task 1

Task 1 begins with news of a security breach at Cloudbor, which Pixlwizz uses to provide online access and payment processing services for approximately 60% of Pixlwizz's gamers.

Gamers agree to terms and conditions when they register, which includes a statement that Pixlwizz accepts no responsibility for losses caused by third parties, but there is evidence that gamers do not read these terms before signing.

The first sub-task asked candidates to recommend with reasons how Pixlwizz should identify and manage the interests of three key stakeholders affected by the breach.

Level 3 responses focussed on an appropriate choice of stakeholders, recognising that gamers are the most important stakeholder to consider. They explained the reasons why the chosen stakeholders were important and gave appropriate advice on how their interests should be managed, for example, that gamers should be provided with guidance on how to check their accounts for fraudulent charges and also reassured that Pixlwizz is working to resolve the problems.

Level 2 answers often identified appropriate stakeholders but did not fully develop their explanation of why the stakeholder is important or how their interests should be managed.

Level 1 responses often identified stakeholders but did not provide much discussion, some ignored the requirement to discuss three key stakeholders and listed many more potential stakeholders without explanation of why they are important or how they should be managed.

The second sub-task asked candidates to evaluate the arguments for and against the suggestion that Pixlwizz should accept some responsibility for the identification and mitigation of the security breach at Cloudbor.

Level three answers were well structured and offered a good balance of well-developed arguments both for and against the suggestion, for example, considering the ethical point of view, the trust gamers place in Pixlwizz and the extent to which it is reasonable to rely on the controls put in place by Cloudbor.

Level 2 responses recognised some arguments both for and against the suggestion but did not provide a full justification for them.

Level 1 answers often only recognised the arguments for or the arguments against and did not give a balanced or well-justified discussion.

Task 2

In task 2, there is a proposal that Pixlwizz should purchase Cloudbor. Cloudbor's share price has fallen following the news of the security breach.

The first sub-task asked candidates to discuss the advantages and disadvantages of Pixlwizz taking control of Cloudbor.

Level 3 answers gave a well-balanced discussion, recognising both advantages and disadvantages, for example, the point that Pixlwizz would gain control over the infrastructure the company needs to generate revenue from online games, but the acquisition could prove a major distraction from Pixlwizz's core business.

Level 2 answers often identified some advantages and disadvantages but did not explore them in sufficient depth. Some candidates focussed on recommending that the purchase should — or should not — go ahead rather than exploring the advantages and disadvantages.

Level 3 responses identified some relevant points but did not fully explain them.

The second sub-task asked candidates to discuss the relevance of the decrease in Cloudbor's share price to Pixlwizz's decision to acquire the company.

Level 3 answers were well structured and considered both the reasons for the share price fall and its implications. For example, candidates recognised that the price fall may be at last in part, temporary and that Pixlwizz needs the services supplied by Cloudbor and buying the company may well be cheaper than setting up the facilities from scratch.

Level 2 answers sometimes focussed on explaining the Efficient Market Hypothesis rather than exploring the implications of the specific situation presented by the case study.

Level 1 responses identified some implications of the share price fall but did not fully explain them.

Task 3

In task 3, candidates were provided with a summary of an internal audit plan for a review of the security of Cloudbor's systems.

The first sub-task asked candidates to discuss the ethical implications of assuring other game companies that Cloudbor's systems are secure, assuming that the findings of the Internal Audit department are favourable.

Level 3 responses were often based on the code of ethics, focussing on appropriate categories such as conflict of interest, confidentiality, and integrity. The ethical principles were well linked to the scenario.

Level 2 answers often listed the ethical principles accurately but provided less application to the scenario.

Level 1 answers often showed a lack of knowledge of ethical principles and discussed the implications of providing assurance in very general terms.

The second sub-task asked what issues the Audit Committee should consider when commissioning the detailed compliance audit, and the approach the Internal Audit Department should take when undertaking and reporting on its investigation.

Level 3 answers showed a good understanding of the roles of both the Audit Committee and the Internal Auditors. The issues to be considered were well explained and recommendations for the audit approach were detailed and well justified.

Level 2 responses made some sound points, but arguments were less well developed, and answers often lacked a clear structure. Less knowledge of audit tests was demonstrated.

Level 1 answers were often very brief and did not show a solid understanding of the role of the Audit Committee. Recommendations on the work of the Internal Audit Department lacked detail.

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Variant 5 Comments on performance

Task 1

Sporttinn, a company that organises online gaming tournaments, has approached Pixlwizz with a proposal to run a tournament that will identify a world champion in one of Pixlwizz's games. Participation in the contest will be free, but spectators will pay to watch matches. Pixlwizz's Board believes that the idea is commercially viable but is unsure whether it would be better to organise the tournament itself rather than sharing the revenues with Sporttinn.

The first requirement asked for an evaluation of the respective implications of working with Sportinn and working independently in creating the tournament. Candidates were generally able to offer some advice concerning the respective implications, although some answers demonstrated only a very limited appreciation of the differences. Level 1 answers tended to concentrate on the fact that involving Sporttinn would require Pixlwizz to share the revenues associated with this venture. Level 2 answers tended to develop that difference to some extent. For example, Sporttinn has offered to promote the tournament, which avoids the need for Pixlwizz to incur marketing costs. Level 3 answers generally identified a wider range of issues. For example, it could be argued that Pixlwizz will be able to learn from Sporttinn and that the initial collaboration could offer significant benefits in the future. Generally, level 3 answers covered a range of matters for the Pixlwizz Board to consider, stating reasons for each matter.

The second requirement asked about the currency risks associated with collaborating with Sporttinn. These arise from the fact that Sporttinn is based in another country and insists on setting ticket prices in its home currency, which is different from Pixlwizz's currency. Level 3 answers generally started by considering the possibility of economic and transaction risk. Those candidates generally both identified the reasons for risks and offered realistic explanations for their potential significance. For example, if Sporttinn plans to remit revenues quickly then there will be a limited transaction risk. Level 1 answers often ignored the currency risks altogether and simply listed financial instruments that might be used to mitigate risk.

Task 2

Pixlwizz went ahead and organised its own tournament, hosting it on Cloudbor which is the third party that provides a platform for Pixlwizz's online gaming. The launch of the tournament may have been disrupted by a cyber attack, although that is uncertain.

The first requirement asked for the identification of the key stakeholders who were affected by the attack and for a recommendation for the management of each stakeholder's interests. Most candidates were able to identify a range of stakeholders, although some were more realistic than others. For example, it is unlikely that Pixlwizz's Board would regard rival gaming companies as having a legitimate interest in this commercial success of this tournament and clearly the Board will not be unduly concerned about a rival's interests. The quality of answers varied according to candidates' ability to justify a stakeholder and recommend the approach to manage the stakeholder's interests. For example, level 3 answers often distinguished the interests of the gamers who had intended to compete

in the tournament from the interests of spectators. Those candidates offered a realistic response to each stakeholder's interests. Level 1 answers offered little justification for the selection of stakeholders and simply offered generic responses, such as issuing press statements to inform stakeholders about the future of the tournament.

The second requirement asked whether the pattern of share price movements was consistent with a deliberate cyber attack. This requirement was not particularly well answered. Level 1 answers simply argued that the share price may have fallen because shareholders were nervous about the success of the tournament. While that was a possibility, and marks were awarded, a sequence of price changes is not consistent with the market forming a view about business risk. Level 3 answers identified the fact that any criminal who planned to disrupt the tournament was effectively in possession of inside information and could benefit from selling Pixlwizz shares. Those scripts often went further and explained that such criminals would probably make a sequence of small sales rather than drawing attention to themselves with a single large transaction.

Task 3

It has now been established that the tournament was disrupted by a cyber attack. The perpetrator has either tricked or bribed an employee into releasing certain key files.

The first requirement asked for four internal controls that could be introduced to prevent a recurrence of this disruption. Most candidates were able to recommend controls and so the requirement was generally answered well. Level 3 candidates distinguished themselves by recommending sensible and relevant controls that could be justified easily. Level 1 answers often failed to address the requirement by either stating types of control, such as segregation of duties (with no explanation of the duties that are to be segregated), or by identifying wider issues, such as creating a strong control environment, which is not a control.

The second requirement asked whether Internal Audit might be employed to identify the employee responsible for the leaked information that enabled the attack. Again, this requirement was answered well. Most candidates could identify some factors that would determine whether an internal audit should be used in this way. Level 3 answers demonstrated evidence of planning and discussed a range of factors, each of which was well justified. Level 1 answers were briefer and offered little in the way of development of discussions.

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Variant 6 Comments on performance

Task 1

Section 1 introduced candidates to a proposal for Pixlwizz to cease selling pay-to-play access, downloads and physical media, and instead to ask gamers to pay a subscription to play its games via the cloud.

The first task asked candidates to evaluate the arguments for and against the proposal being consistent with Pixlwizz's core values of Imagination, Innovation, Commitment and Teamwork.

Many candidates presented level 3 or strong level 2 responses to this task, with many answers including a wide range of well applied and justified arguments for and against the proposal's consistency with Pixlwizz's four core values. Level 3 answers were those that focused specifically and clearly on each of the four core values, and which presented a balanced assessment of the proposal's potential impact on each.

Weaker level 2 answers mostly failed to consider all four core values or presented an answer which was not adequately balanced or justified within the case context.

Level 1 responses to this task were those that failed to consider the core values at all and instead presented a general assessment of the proposal. Candidates are reminded to focus their answers directly on the question that has been asked. Some candidates presented a SAF analysis in answer to this requirement but gained limited credit if their answer made little or no direct reference to consistency with the four core values.

The second task in this section required candidates to recommend whether the Board should base its decision on the advice given by the investment analyst, who had advised that the cloud gaming strategy was unsuitable for Pixlwizz, as revenues would decline, risks would increase, and the share price would fall as a result.

Level 3 responses to this task offered a full and well-balanced evaluation of the advice and justification offered by the investment analyst. Candidates who presented level 3 and strong level 2 answers considered both the merits of the advice offered and the possible risks of relying on this advice. The strongest answers were those that appropriately challenged the justifications given by the investment analyst. Candidates who weighed up the potential value of the investment analyst's opinion as a gaming industry expert against the internal expertise of the Board members also scored well on this task.

Task 2

Section 2 presented candidates with an extract from a Board meeting agenda that outlined two possible approaches for delivering the proposed cloud gaming strategy: a partial commitment versus a full commitment.

The first task asked candidates to evaluate the challenges associated with using the suitability, feasibility and acceptability (SAF) criteria to choose between the two alternatives.

Level 3 and strong level 2 responses to this question offered a clear and comprehensive evaluation of the application of the suitability, feasibility and acceptability criteria to make strategic choices. However, there were very few candidates who achieved a level 3 score, as most answers focused more on a direct application of the SAF criteria, rather than actually assessing the challenges of using it to make a decision between the two approaches. Very few candidates considered all the potential difficulties of using SAF to choose between the two alternative approaches to delivering this cloud gaming proposal. However, those that did scored well on this task.

Weaker level 2 responses mostly presented a separate analysis of the two proposals using the SAF criteria, without much consideration of the challenges in choosing between the two alternatives.

Level 1 responses were often very thin, poorly applied SAF explanations, with limited application to the case context (often presenting a very brief SAF application of only one of the proposed approaches).

The second task asked candidates to recommend the most appropriate method of funding the investment if Pixlwizz was to proceed with a full commitment to cloud gaming.

This question was answered very well by most candidates, and many presented high level 2 or level 3 responses. These answers made good use of the reference material to assess the current financial position of the business, and also offered a thorough and well-reasoned justification for an appropriate funding approach. Most answers were well balanced and made sound recommendations in relation to a range of potential methods of funding, including applied discussions of debt, equity and retained earnings.

Task 3

In Section 3, candidates were presented with a news article that outlined the dissatisfaction of customers with the new could gaming service, based on the full commitment approach which had been adopted by Pixlwizz six months ago. The news article suggested that Pixlwizz had acted unethically and outlined two key reasons why.

The first task asked candidates to evaluate the argument that Pixlwizz had behaved unethically by switching to a fully cloud-based service.

Candidates who presented Level 3 and high level 2 answers offered a well-justified assessment of the two ethical issues raised in the news article, and in most cases effectively applied appropriate ethical principles to explain and justify their arguments. Also, stronger answers were well balanced, considering both the reasons for and against Pixlwizz acting unethically. The strongest answers were those that argued that the concept of professional competence and due care would justify Pixlwizz's actions because the company's primary duty is to its shareholders. Better answers also made good use of the reference material to support the points they made.

Low level 2 answers often presented largely theoretical answers which did not focus specifically on the most appropriate ethical issues to be considered. Many spent too long describing the ethical principles rather than applying them to the case context.

Very few candidates presented level 1 answers to this task. Those that did present very brief and theoretical answers merely listed or briefly described the ethical principles with little or no direct application to the reference material information.

The second task asked candidates to evaluate the arguments for and against a suggestion to appoint an additional non-executive director who has a background in cyber security.

This task was answered well by most candidates, with many presenting high level 2 or level 3 responses. Such answers took a well-structured approach to this task, considering both the reasons for and against the appointment of an additional non-executive director. The strongest answers were those that clearly focused on the need for board level expertise in cyber security, following the adoption of the cloud gaming strategy and argued the case for an executive appointment rather than a non-executive one.

Weaker level 2 and level 1 responses often lacked sufficient application to the case context, in that they did not adequately focus on the need for a new appointment to have a background in cyber security. Therefore, such answers were often generic and not well applied to the case context.

Tips for future candidates

There are several key points to consider when preparing for future Strategic 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 the topics included in each of the core activities. It is not sufficient to rely on the fact that you remember it from the OTQ exams, because it is likely 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 comprehensively and with clarity, 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:

  o 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 apply 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 decisions that you could be asked to comment on.

  o Practise, practise, practise past SCS 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:

  o 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 on the answer screen itself.

  o Please take care of how your answer looks. Some answers are very difficult to read because of poor spelling and grammar. While 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 a clear understanding of the issues.