



PROFESSIONAL LEVEL

WEDNESDAY 8 DECEMBER 2021

2.5 HOURS

BUSINESS STRATEGY AND TECHNOLOGY

This exam consists of **three** questions (100 marks).

Marks breakdown

Question 1	45 marks
Question 2	34 marks
Question 3	21 marks

Important Information:

1. Please read the instructions carefully before you begin your exam.

Starting and ending the exam

2. Click on the **right arrow** in the header to begin the exam. The exam timer will begin to count down.
3. A warning is given five minutes before the exam ends. When the exam timer reaches zero, the exam will end. To end the exam earlier, navigate to the last question and click the right arrow button. Click the **Submit** button to close the exam.

Encountering issues during the exam

4. If you encounter any issues during the delivery of the exam you should alert the invigilator (or online chat support if you are sitting remotely). Neither the invigilator nor the online chat support can advise you on how to use the software.

Preparing your answers

5. Respond directly to the exam question requirements. Do not include any content of a personal nature, this includes your name or any other identifying content.
6. You may use a pen and paper for draft workings. Any information you write on paper will not be read or marked.
7. The examiner will take account of the way in which your answers are structured. You must make sure your answers and workings are clearly visible in the word processing area when you submit your exam. **Only your answer in the word processing area will be marked.** You must copy over any data from the spreadsheet area to the word processing area for marking. The examiner will **not** be able to expand rows or columns where content is not visible.

After the exam

8. If you are sitting in an exam centre and believe that your performance has been affected by any issues which occurred during the exam, you must inform your invigilator at

the time of occurrence and follow up with ICAEW directly after your exam. You will then need to submit a special consideration application to ICAEW if you wish us to consider such issues, as per our published policy. If you are sitting remotely please submit your special consideration application referring to anything of note which occurred and will have been recorded, for use as evidence to support your case.

9. A student survey is provided post-exam for feedback purposes.

Question 1

Olib Ltd

Olib Ltd (Olib) operates a peer-to-peer (P2P) platform and social network. It connects individuals who want to buy and sell fashionable, used clothes via an app on a phone or tablet.

The seller advertises an item of clothing on Olib's app, agrees a price with the buyer and arranges delivery. The buyer pays the seller via the app, using a third-party payment provider. This provider withholds 10% commission for Olib, deducts its own commission and passes the balance on to the seller. Olib makes no other charge to buyers or sellers for using the app.

Olib operates in the UK. Its reporting period ends on 28 February.

Reselling used clothes online

The early 2000s saw the introduction of 'fast fashion', where the very latest fashion trends were made available very quickly in shops. Many younger consumers (aged 15-25) like to buy fast-fashion items as soon as they become available, wear them a few times then discard them. This behaviour is fuelled by social media, as some consumers want to be seen online only once in the same clothes.

As a result, fashion retailers continue to produce fast-fashion items in increasing quantities, despite knowing that many will be discarded quickly, usually in landfill. This activity has led to concerns over the environmental sustainability of the fashion industry.

Instead of sending used clothes to landfill, individuals can sell them direct to buyers via auction websites. This generates low prices, as the sites are not focused on clothing and buyers are from all age groups.

Since 2015 companies like Olib have connected buyers of used clothes directly with individuals who want to achieve higher prices than on auction websites. Sellers on average achieve 12% of the price they paid for each item when new.

Along with several other apps in the market, Olib is focused on reselling fast-fashion clothes rather than quality 'vintage' items that are several years old. Most fast-fashion clothes are less than three months old when they are resold in this way.

In the last three years, online sales of used clothes, including fast-fashion clothes, have grown 20 times faster than sales of new clothes.

The UK used clothes market follows the same seasonal pattern as fashion retail generally, with a large peak in sales in Quarter 4 (December to February).

Company background

Olib's app combines an online shopping platform with a social network. The app operates in the same way for all users, who sign up to it with an existing social media profile. Most use the app both to buy and sell clothes. Olib tries to build a community amongst its users. They can post pictures easily, including from other social media accounts, 'like' posts by other

users, and send messages directly to them. Each user's homepage has an unending scrolling function, the same as other social media apps.

Olib invests heavily in staff and technology to retain its users. It had a strong retention rate of 90.1% in the quarter to 30 November 2021.

Olib currently has two million users in the UK, 80% of whom are aged under 25. A large global competitor, Caper, was launched in the UK in late 2021. Caper has 20 million active users across the world, with 500,000 in the UK.

Olib's mission statement states that: 'Olib creates a circle of buying and selling fashionable items to reduce the amount of clothing that is produced but then quickly disposed of in landfill. This makes fashion more sustainable and affordable for all.'

Buyers are attracted to Olib by these sustainability credentials as well as by the opportunity to obtain low-priced items which are still in fashion.

Olib has grown steadily since its launch in 2015, especially in the last two years, aided by the trend for online shopping and the rise in awareness of the environmental impact of fast fashion. The fast-fashion industry has also continued to grow in the same period, despite environmental concerns.

Financial and non-financial information for Olib for Quarter 3 ended 30 November 2021, plus quarterly revenue analysis and comparisons with the previous reporting period, are in **Exhibits 1 and 2**.

Olib's direct costs for facilitating sales on the app are small. They include amounts paid to the payment provider, app hosting costs and amortisation of development costs. However, Olib has high fixed operating expenses including: marketing, technology and employee costs. With continued growth in sales it hopes to achieve profitability by 2025.

Assumptions for preparing forecasts for Quarter 4 ending 28 February 2022 are in **Exhibit 3**.

Use of artificial intelligence (AI)

Olib is investing in improved AI to deliver an engaging, bespoke user experience. In 2021 it recruited highly skilled researchers to identify the latest fashion trends and items or hashtags that are popular on social media. Olib's AI learns from this research, plus the profiles and previous transactions of each user, to create a unique homepage for each user and fully refine its purchase or sale recommendations to them. Most of Olib's competitors just offer a homepage that is generated automatically from the user's previous transactions.

Future strategy

Pablo Inc (Pablo) is a successful major global retailer of fast fashion which wants to be seen as a sustainable brand.

From March 2022, Pablo hopes to sell new items via the Olib app at a large discount to the usual retail price. Olib's AI would identify users who have previously bought used Pablo items then promote the new Pablo items to them. Olib believes this strategy fits its mission statement, as Pablo would be selling surplus inventories from its shops, not making new items specifically to sell on Olib.

This would be the first time that Olib has worked with a company, rather than individuals, as a seller on its app. The directors believe that, for access to all its users, Olib could charge Pablo more than its usual 10% commission to sellers. They believe that commercial users like Pablo will help Olib to become profitable by 2025.

Requirements

1. Using the data in the Exhibits and the other information provided:
 - Analyse and explain Olib's performance for Quarter 3 ended 30 November 2021 compared with Quarter 3 ended 30 November 2020.
 - Prepare a forecast of Olib's expected gross profit and active users for Quarter 4 ending 28 February 2022. Discuss the validity of the assumptions used from Exhibit 3. Ignore the proposal from Pablo. **(21 marks)**
2. Explain the extent to which Olib has a sustainable competitive advantage in its market. **(12 marks)**
3. Explain the factors to be considered by Olib's directors in deciding whether to work with Pablo. **(12 marks)**

Total: 45 marks

Exhibit 1: Financial and non-financial data for Olib for Quarter 3

Financial data	Quarter 3 ended 30 November 2021 £'000	Quarter 3 ended 30 November 2020 £'000
Revenue	1,335	863
Cost of sales	<u>(193)</u>	<u>(184)</u>
Gross profit	1,142	679
Operating expenses	<u>(2,131)</u>	<u>(992)</u>
Operating loss	<u>(989)</u>	<u>(313)</u>
Non-current assets: app development costs	731	427
 Non-financial data	 Quarter 3 ended 30 November 2021	 Quarter 3 ended 30 November 2020
Number of items sold	4,807,327	2,415,301
Average number of employees	23	14
Active users:		
At the start of the quarter	1,880,000	1,340,000
New app downloads	324,000	242,000
At the end of the quarter	2,018,000	1,390,000

Retention rate*	90.1%	85.7%
Average dwell time (duration of user's activity on the app)	5.06 minutes	4.76 minutes
Number of mentions on social media	1,800,000	900,000
Average time from download to first purchase	18 hours	29 hours
Average time from download to first sale	52 hours	72 hours
Average app user rating (out of 5, with 5 being the highest)	4.8	4.1

*Retention rate is calculated as (Active users at end of the period – New app downloads)/Active users at the start of the period

Exhibit 2: Quarterly revenue analysis

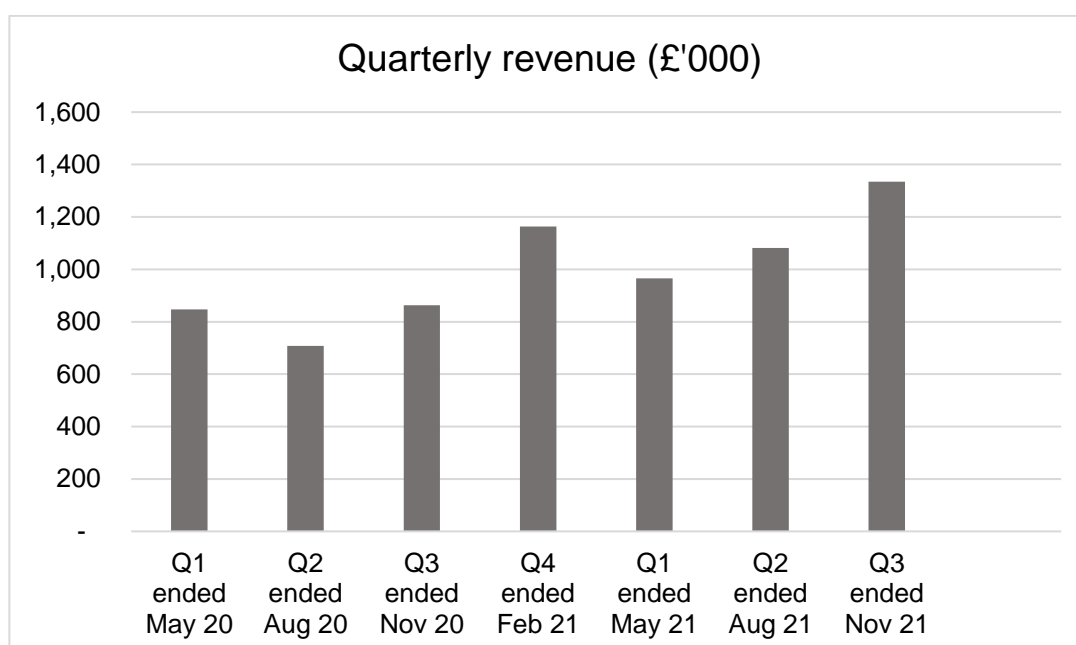


Exhibit 3: Assumptions for forecast for Quarter 4 ending 28 February 2022

- Revenue will grow by 35%.
- The gross margin will remain consistent with the margin in Quarter 3 ended 30 November 2021.
- New app downloads will be 425,000.
- The retention rate will be 89%.

Question 2

Pacey

Pacey Inc (Pacey) is a company that provides a home exercise service. It combines an at-home running machine (treadmill) with an integrated tablet that allows the runner to take part in group classes remotely.

Pacey started its business in Australia in 2017 and by 2020 its operations had spread to other English-speaking countries such as the UK, US and Canada. This geographical spread allows Pacey to operate live streamed classes regularly throughout every 24-hour period. It also has a library of recorded classes that customers can access on-demand.

Pacey's product

Pacey manufactures the treadmill and integrated tablet, develops and maintains the software and generates content for the live and on-demand classes. Pacey has a production facility and a limited number of shops in each country in which it operates. Most treadmills are bought online on Pacey's website.

When customers purchase the treadmill they also buy an ongoing, monthly-paid subscription so they can use the tablet for classes.

The treadmill is of a very high specification. The tablet collects data each time the treadmill is used and gives the customer extensive information as they run, including speed, distance and heartrate. It also presents their progress over time and the leader board for their classes. This motivates customers more than if they were running by themselves outdoors or on an ordinary treadmill without a tablet. The tablet contains a webcam which allows the class instructor to give live feedback to the customer.

Customers are attracted by Pacey's convenience as they can access classes at any time, both live-streamed and recorded. Most of Pacey's customers are experienced runners who want to train at home.

Several competitors offer at-home gym equipment – treadmills, bikes and rowing machines – with an integrated tablet and access to live-streamed and on-demand classes. The deciding factors for most customers are the price of the treadmill and subscription, and access to the best instructors. Pacey retains 90% of its subscribers and attributes this success to the quality of its instructors.

Pacey's instructors

Instructors take each class from a high-tech studio where filming is of excellent quality. Pacey has a studio in each country in which it operates. Pacey evaluates each potential new instructor rigorously to ensure they are the right fit for the brand. Most are personal trainers or ex-athletes, with high-profile celebrity clients as private clients in addition to their online Pacey classes. Instructors are independent contractors who are paid a fee per class, the amount of which depends on their popularity. They can earn large sums from Pacey and some have become celebrities in the fitness market, so Pacey attracts the very best instructors.

When Pacey launched in the UK in 2020, it persuaded the most popular instructor used by Dawson, a rival and more established brand, to deliver live-streamed group classes exclusively for Pacey. It also recruited Dawson's marketing director, Joey Lindley, to join Pacey as its commercial director. She has helped Pacey gain contacts in the UK fitness industry and find instructors.

Future plans

Pacey's directors held a board meeting to discuss plans to expand into other European countries outside the UK. They identified Germany as a key target market. Germany has a 20% share by value of fitness market revenue in Europe, slightly higher than the UK's 19% share. 13% of people in Germany belong to a gym, compared to 15% in the UK. None of Pacey's direct competitors currently operate in Germany.

Pacey's CEO started:

'We need to know the risks of the German market, and we haven't agreed how we should enter it. There are two options:

- **Option 1:** enter the market independently by recruiting German-speaking instructors and establishing a studio in Germany. Initially Pacey would not set up any shops.
- **Option 2:** use Finn Laufer, a German agent.'

The sales director expanded on Option 2: 'Finn has worked in the German fitness industry for decades. He has connections with popular personal trainers and athletes in Germany who he will recruit as instructors. He will also arrange for us to rent some space in a high-end fitness equipment shop to sell the treadmills. Finn will charge us a high one-off fee plus commission on each treadmill with subscription sold, but this option will give us a retail presence from the outset plus access to high profile instructors. We just have to supply the treadmills and marketing necessary for the launch. We will initially supply the treadmills from the UK.'

The CEO responded: 'Our management consultants will produce a report on the overall risks of expansion into Germany with a comparison of the two options. Assumptions for the first year, based on initial market research, are contained in **Exhibit 1**.'

Letter from Dawson's lawyer

In late November 2021 Pacey received a letter from Dawson's lawyer containing allegations about the recruitment of Joey Lindley (**Exhibit 2**). Pacey's lawyer believes that Dawson's allegations will be difficult to prove in court.

Requirements

1. Using Exhibit 1 and other information supplied, prepare a report for the Pacey board which advises on:
 - whether to expand into Germany;
 - which option should be adopted, assuming expansion into Germany is agreed. Give reasoned advice and include supporting calculations. **(24 marks)**

2. Explain the ethical and commercial implications for Pacey of the letter from Dawson's lawyer (Exhibit 2). Set out the actions the directors should take to address these issues. **(10 marks)**

Total: 34 marks

Exhibit 1: Assumptions for German expansion in Year 1

<u>Under both options:</u>	
Selling price of treadmill	€1,500
Monthly fee charged for tablet subscription	€15
<u>Option 1: Enter market independently</u>	
Number of customers expected to purchase treadmills and subscribe in Year 1	20,000
Gross margin (on treadmill and subscription combined)	41%
<u>Option 2: Use Finn</u>	
Initial fee paid to Finn	€500,000
Commission paid to Finn on each treadmill sold	5%
Gross margin (on treadmill and subscription combined)	39%
<u>Other assumptions:</u>	
<ul style="list-style-type: none">• For both options, treadmill sales occur evenly over the year and on average each treadmill buyer subscribes for six months in Year 1.• For Option 2, there is a 60% chance that the number of customers will be 30% higher than for Option 1. There is a 40% chance that sales will be the same under both options.	

Exhibit 2: Extracts from letter received from Dawson's lawyer

'In 2020 you recruited our marketing director, Joey Lindley. We note that, since then, Joey has given you access to several of our key contacts.

'Joey Lindley had no authority to take details of our customers and contractors when she left our employment. We demand that you stop contacting any customers or instructors of Dawson immediately.'

Question 3

Baile

Baile is a city with a population of 2.8 million residents, in the country of Inis, where the currency is the Inis \$ (\$).

The city is run by Baile Council which has ten elected members, including the Mayor who is chief executive. The council as a whole is responsible for all aspects of running the city in the public interest including: transport, housing, emergency services, health, and economic development. Baile Council has the power to secure investment from private companies for specific projects.

In running the city, the council must adhere to the principles of governance, set by central government, which are included in its constitution:

- Selflessness
- Accountability
- Openness

The council was elected recently to implement a five-year plan for Baile to become a smart city. This includes developing the infrastructure needed for all residents, households and businesses in the city to have access to superfast internet within five years (**Exhibit**).

Baile's current internet is provided through a system of cables and older phone lines, and the service can sometimes be very slow. Superfast internet will facilitate high quality video calls and simultaneous download of large files, which is needed as people increasingly work from home in Baile.

The council plans to give free internet access across the city at 55 outdoor and indoor internet hotspots which residents can sign into, using the local government portal. Each household in Baile will also be able to subscribe to superfast internet at home, at a cost of \$26 per month. Households currently pay on average \$18 per month for their existing, slower connection.

The council believes the smart city plan will attract major business investment to Baile. A recent report, by the Inis government, suggested that every \$1 of public money invested by an area in superfast internet will bring \$20 of economic benefit to it, in terms of jobs and business investment.

The smart city plan requires a total of \$50 million in new capital over five years, with most of the cash needed at the start of the project. Baile's usual annual capital spending budget is \$150 million.

Partnership with private internet provider

To roll out the superfast internet, the council will partner with a private internet provider which has both the required technical skills and the ability to contribute to the funding of the project. Using a private partner for local government projects is common in Inis. The partner will have exclusive rights to provide the internet to Baile's public buildings and services eg, schools, libraries and all council buildings and hotspots. Baile's households can choose to remain with their current internet provider.

As the partnership requires data sharing, the chosen partner must sign a confidentiality agreement with the council. The free hotspot internet access will require residents to provide personal details when they sign into the local government portal. This will be administered by the chosen partner so it must adhere to all aspects of the data protection laws in Inis.

The council's chosen partner is Luas Inc (Luas), which has been successful in rolling out superfast internet elsewhere in Inis and delivering ongoing maintenance once the roll-out has been completed. The CEO of Luas is a personal friend of Baile Council's Mayor.

Luas will provide the upfront cash to finance the roll-out then will receive annual payments from the council which, after five years, will total half of the initial capital. Luas will also earn revenue from providing internet to households.

Rolling out superfast internet will involve construction work across Baile which will be disruptive to residents. Luas claims that, in its previous rollouts, no resident had been without access to internet for longer than 10 days.

Requirements

1. Discuss the extent to which the decision for Baile to become a smart city, including the choice of partner, fits with the principles of governance included in Baile Council's constitution. **(10 marks)**
2. Explain how Baile Council could measure the success of the project, including suggested KPIs. **(11 marks)**

Total: 21 marks

Exhibit: Residents given access to superfast internet over the 5-year rollout period

