

Think Ahead

ACCA

STRATEGIC BUSINESS LEADER

PRE-SEEN INFORMATION

Applicable for the June 24 Mock Exam

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1. Introduction

NCTech is a well-known cloud service company operating in Farland, a developed country which is the home to many technological companies. NCTech was founded by three software engineers.

NCTech has grown dramatically during its first 10 years of operation. The three founding owners remain fully committed to the business and currently hold the positions of chief executive officer, commercial director, and operations director on the NCTech board.

2. Cloud service industry information

Industry overview



Cloud service companies offer data storage facilities, with many also providing a wide range of computing services over the internet ('the cloud') to user organisations (clients).

Competitive pricing has made cloud services a financially viable option for client organisations of all sizes.

The cloud services industry in Farland has been established for more than a decade and continues to grow to meet the needs and demands of the market, particularly amongst small and medium sized enterprises, and individual professionals.

Key cloud service statistics 20X2

Key statistics	20X2 Global	20X2 Farland
Percentage of client data stored in the cloud	52%	38%
Total annual revenue generated by all cloud services providers	\$155 billion	\$8.3 billion
Top 10 cloud services companies' share of the market	74%	85%

Cloud service models

Cloud service companies can provide three service models to clients.

Infrastructure as a service (IaaS)

IaaS is a basic service which provides networks, servers and data storage facilities directly over the internet. With IaaS, clients lease server capacity for data processing and storage.

Clients use their own in-house expertise to install and run their software applications on their own operating system.

Platform as a service (PaaS)

PaaS provides clients with all the services provided by IaaS, and in addition it offers communication software which enables access to the cloud service provider's operating systems.

PaaS allows clients to run their own software applications on the provider's operating systems.

Software as a service (SaaS)

SaaS provides clients with all the services provided by PaaS and it is also where particular software applications are hosted centrally by the cloud service provider for use by clients. SaaS

allows data to be accessed and processed by the client on the cloud server as if it were installed on a client's own computer system.

With SaaS, the cloud service provider effectively handles all components of the service, so the client does not need its own specialist IT hardware and software. As SaaS is a premium service, it is the most expensive.

The range and extent of services offered under each model determines the fees chargeable to clients.

The table below summarises the different cloud services provided under each service model.

	IaaS	PaaS	SaaS
Provision of data servers	✓	✓	✓
Data storage facilities	✓	✓	✓
Networking resources	✓	✓	✓
Communications software		✓	✓
Operating systems		✓	✓
Data software applications			✓

Cloud service delivery

There are three ways in which the three cloud service models can be delivered:

The public cloud offers the required technological infrastructure and services over the cloud to any organisation or individual on a 'pay as you use' basis. The public cloud does not target particular clients or client groups, and it is hosted from the cloud service provider's facilities.

The private cloud provides computing infrastructure for the exclusive use of specific business clients. It is best suited for large businesses which demand considerable, and more complex, computer processing capability. The private cloud can either be located in a client's facility or hosted at a designated cloud services third party commercial site. Private cloud services are charged at a premium price.

The hybrid cloud is a combination of both public and private cloud models. More important aspects of the client's operations can be hosted on a private cloud facility, with more general business functions run on the public cloud. This provides clients with greater operational flexibility and although it is more expensive than the public cloud, it is significantly cheaper than the private cloud.

Benefits of cloud services to clients

There are a number of reasons why cloud services are an attractive option to clients.

1. Cloud service provision is easily scalable both up and down, reducing costly and significant changes to a client's technology infrastructure.
2. Clients can have instant access to cloud services systems, avoiding lengthy system development and implementation.
3. Cloud service companies have enhanced security measures which reduce threats to client's data and system integrity.
4. Data can be accessed and processed at any time over the cloud from any remote location or using any devices, including mobile devices.
5. The cloud enables clients to share data easily and it supports collaborative working over

diverse locations.

6. Cloud services are supported and maintained by the cloud service provider, reducing the need for clients to employ expensive IT specialists to maintain their in-house systems.
7. Clients do not require expensive space to accommodate hardware, as the technology is managed and accommodated by the cloud service provider.

Cloud service industry challenges and developments in Farland

There are a number of significant challenges which the Farland cloud service industry is currently facing:

1. The Farland cloud service sector is growing very rapidly and is anticipated to double in size over the next five years. This means that both the nature and extent of competition within the industry is likely to change considerably over this period, with clients' demands becoming more challenging to satisfy.
2. More global competition is emerging so the industry may become dominated by a small number of large, well-established IT companies. This could have the effect of reducing the influence of smaller Farland cloud service companies and consolidating the industry.
3. Clients are highly dependent on a reliable high-speed internet connection for cloud services to work effectively. Although this is currently not an issue in Farland as there are a number of different internet providers, it is critical that the Farland internet and broadband infrastructure keeps pace with demand.
4. There is a constant risk from hacking, data loss, and distributed denial of service from unscrupulous external sources. A distributed denial of service attack involves excessive activity on the system from an unidentified source which significantly slows down the system and reduces its operational performance.
5. The regulatory requirements associated with cloud services are evolving and may turn out to be more challenging to comply with. The regulatory demands may become more costly and onerous, particularly for smaller cloud service companies.
6. There is constant demand for highly skilled and technically knowledgeable employees to work within the cloud service industry. However, the availability of suitably qualified staff for this rapidly growing sector means that they are in short supply, and very costly to employ.

Cloud service innovation

The following areas of technological development have been identified as being vital to the future success of all cloud service businesses which provide the SaaS service model within the Farland cloud service industry.

Business intelligence [BI]	BI systems collate, store and process data to provide clients with meaningful information in support of decision-making. If BI were offered on the cloud, it would satisfy the growing demands from clients for access to BI systems combined with the other benefits of cloud applications.
Quantum computing	Quantum computing performs complex data processing more efficiently than a normal computer. If quantum computing is offered on the cloud, it could dramatically increase both the processing capability and performance of clients. This could prove to be a unique selling point for a cloud service provider.

Artificial intelligence (AI)	AI is technology which simulates human intelligence and is programmed to 'think and act' like human users. If available over the cloud, it would enable clients to access and harness its advanced capabilities within their business operations at a lower cost.
Machine learning (ML)	Machine learning is a more sophisticated form of AI which allows applications to more accurately forecast results and outcomes without being explicitly programmed to do so. Having this facility on the cloud could be a game changer for many clients who would not otherwise be able to afford such complex technology. ML includes a diverse range of technologies including voice recognition and virtual assistants.

Operational and financial key performance indicators [KPIs]

Operational KPIs	
Service availability	1. The amount of time the service is actually available as a proportion of the total amount of time that the service is scheduled to be available to the client. The target is always 100%.
Capacity utilisation	2. A measure of the proportion of the available cloud services which have been allocated for use by clients. <i>Note: The allocated service may not be fully utilised at all times, but it remains available for clients if they choose, so it cannot be reallocated.</i>
Service reliability	3. The number and duration of reported service failures in a given period.
Security breaches	4. The number of security breaches identified in a given period.
Financial KPIs	
Average revenue/client	1. The average amount of revenue generated from an individual client, over a given period.
Operating profit margin	2. The profit recorded before the payment of interest on debt and taxation, as a percentage of the revenue generated.
Return on capital employed	3. The operating profit derived from the capital employed by the business over a given period, expressed as a percentage.
Security breaches	4. The financial impact of cloud security breaches in any given period. This comprises compensation paid to affected clients, and lost revenue from forecast future business.

3. NCTech

Background

NCTech is a well-known cloud service company operating in Farland. NCTech was established and incorporated 10 years ago by three software engineers. They recognised that the rapid growth in demand for cloud services presented them with a great opportunity to use their combined knowledge and skills to set up a business in this field.

NCTech operates as a public cloud services company so that it can target a wide client base of small to medium sized companies (SMEs) throughout Farland. NCTech provides comprehensive data storage facilities, a range of servers for the storage, retrieval and sending of data, and the required networking resources necessary to provide the IaaS service model. NCTech has never offered the PaaS or SaaS service models.

Ownership

The initial shareholder investment was supported by venture capital, which was repaid when NCTech listed on the Farland stock exchange five years ago. Each of the three original shareholders still has a 10% stake in NCTech. The remaining shares are held by a number of institutional investors, such as pension funds and unit trusts, but no single shareholder holds more than 10% equity.

The three founding owners remain fully committed to the business and currently hold the positions of chief executive officer, commercial director and operations director on the NCTech board. The current board membership has not changed in the last five years.

Shares in NCTech have performed better than other similar technology companies on the Farland stock exchange over the last five years. However, in the last financial year there has been an unforeseen and significant fall in gross profit, which has affected the share price and unsettled some shareholders.

The absence of any dominant shareholders means that the board is generally free to run the business in the best interests of the whole company, without any direct or significant interference.

Vision, mission, and corporate values

The NCTech corporate vision is to be one of the leading cloud service providers in Farland

The mission of NCTech is to become a world-class cloud service company by:

- Constantly achieving operational excellence.
- Differentiating ourselves by exceeding the expectations of our clients.
- Developing and maintaining a strong NCTech brand.
- Developing sustainable relationships with all key business stakeholders.
- Maintaining a profitable business model to attract further investment.

NCTech core values

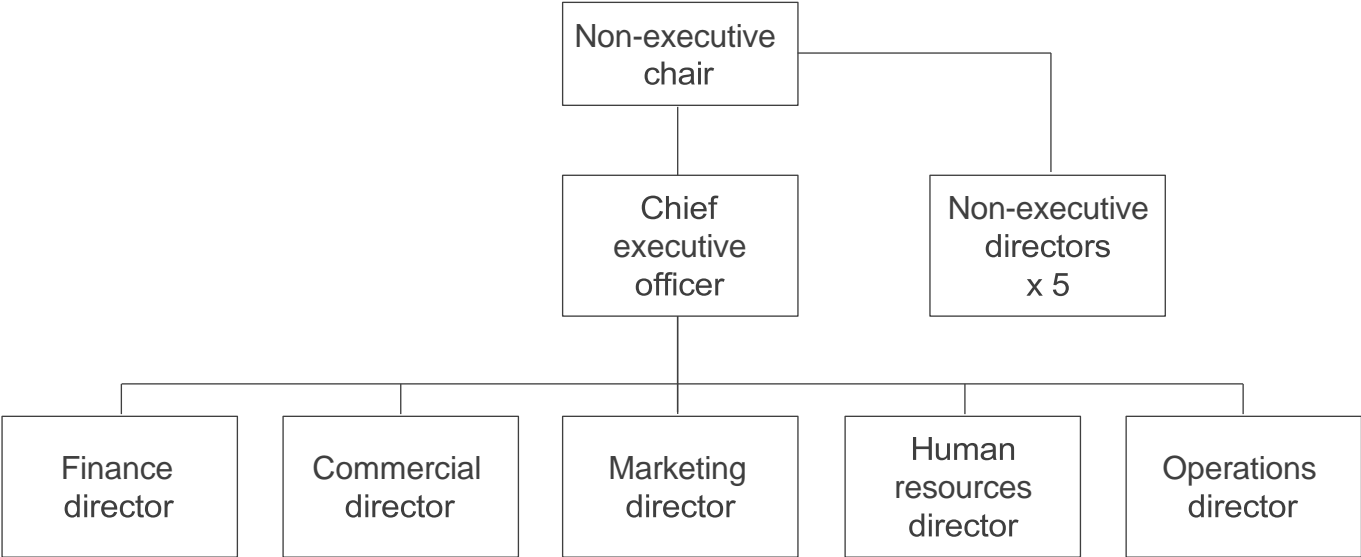
Energy: Grasp opportunities and make things happen.

Excellence: Strive to do things better than anyone else in our industry.

Excitement: Foster challenge, trust, and respect to and from colleagues through teamwork.

Ethics: Promote and show integrity and openness in all areas of business.

NCTech board structure



There are four sub-committees:

- Audit committee, comprising three non-executive directors all of whom have a strong background in finance.
- Nominations committee, which is run by the non-executive chair and comprises all non-executive directors.
- Remuneration committee, comprising three non-executive directors with the human resources director providing the members with professional guidance.
- Risk committee, comprising two non-executive directors and the commercial director and operations director.

NCTech is fully compliant with the Farland corporate governance code.

Risk register

NCTech maintains a register of principal risks.

The risk committee determines the nature and extent of the risks NCTech is willing to accept to deliver success. The risk committee is also responsible for maintaining and monitoring the systems of internal control and risk management.

Risk management activities are co-ordinated by a team led by a risk manager who reports to both the operations director and to the chair of the risk committee.

NCTech's principal business risks include:

1. Competitive threats
 - New entrants capturing existing NCTech market share.
 - Technological obsolescence.
 - Market pressures affecting pricing.
2. Staffing concerns
 - Loss of key personnel.
 - Bypassing internal procedures and controls.
 - Regulatory breaches.
 - Unethical behaviour and/or decision-making affecting business operations.
3. Technology issues
 - Lack of internet availability; key to accessing cloud services.
 - Service availability on a '24 hours a day, 7 days a week' basis.
 - Virus contamination of client data, operating systems, and applications.
4. Data security
 - Unauthorised access to client data.
 - Data breach or loss, probably from a hacker.
 - Distributed denial of service attack which involves excessive activity on the system from an unidentified source which significantly slows down the system and reduces its operational performance.
5. Regulatory changes
 - New regulations relating to the cloud service industry introduced by Farland authorities.

Current strategic position

NCTech periodically appraises its position and status in the Farland cloud service industry. The recent findings are summarised below:

Strengths

- A good reputation with the core client base.
- Strong relationship with clients.
- The provision of secure and reliable services, competitively priced.
- A capable and competent workforce.

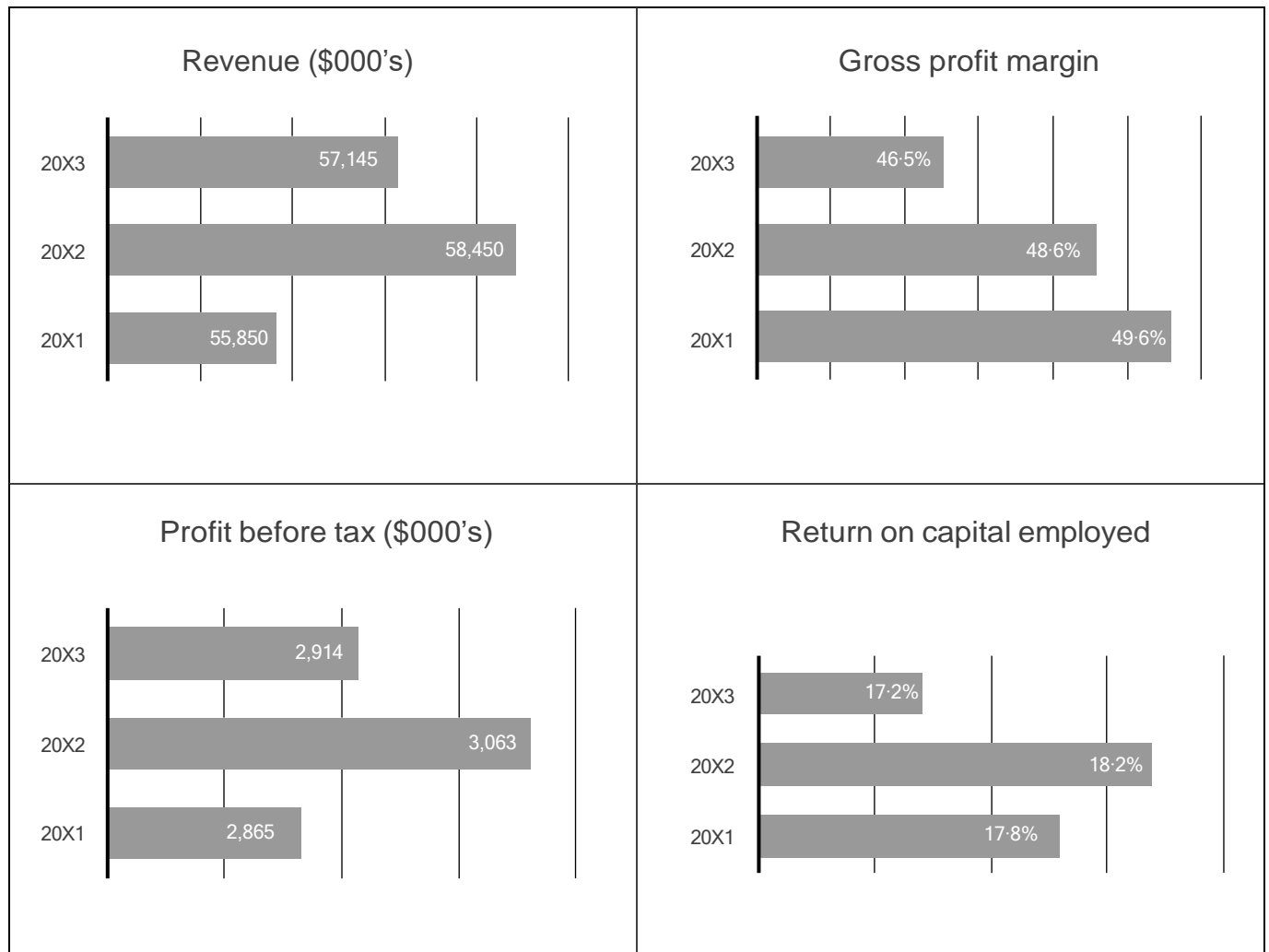
Weaknesses

- The IaaS service model offered to clients has never changed, so restricts growth potential.
- Several large, overseas cloud service companies have recently entered the Farland market.
- Deteriorating retention of key members of staff.
- Worsening financial performance over the last financial year.
- High dependency on internet service providers, to enable clients to access the NCTech IaaS system.

Performance dashboard

Financial performance

NCTech has a financial year ending 30 September.



Operational performance

