

ITIL[®] 4: Digital and IT Strategy Reference and Study Guide

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Foreword

If you're reading this foreword, you're likely to be a bit like me. Someone who has been practising IT service management for some time, has leveraged ITIL to guide their IT service delivery, and now finds themselves looking for more. While the foundational base provided thus far by ITIL remains strong, you're looking for guidance on how to navigate a constantly turbulent sea of change – where technology underpins all business functions and the two are inextricably linked. In fact, your success in leveraging technology might have become a competitive edge and now your business is ready to soar.

This reference guide is a tool to be layered into your existing toolbox, arming business and IT leaders with information about how to build unified and coherent strategies on several levels – business, digital, and IT. It will guide your perspective and improve your knowledge, positioning you to collaborate more effectively on business strategy. Building strategies that enable organizations to ride the waves of today's business seas requires agility, trust, and flexibility, while being rooted in the core principles and practices that ITIL consistently and reliably equips us with – the sturdy hull of the boat, if you will.

As our world continues to move faster and grow more complex, we must broaden our view and focus to encompass the various levels on which strategy must be developed and integrated. Leaders must equip themselves with an understanding of technology and acquire a high emotional intelligence so that they can lead from a place of service. These may be new, different, and potentially uncomfortable ways of approaching leadership. Yet when they are embraced, they will position leaders to sail through the disruptive business ecosystem in which they find themselves, turning the turbulence into opportunity.

This guide both consolidates current thinking on digital and IT strategy (DITS) and provides a useful study tool for those preparing for their DITS exam. It also serves as a quick reference aid for practitioners as they go about their daily working lives, steering businesses towards the outcomes of operational efficiency and effectiveness, excellent customer service, and superb employee satisfaction. It's a magical triad.

I am in the fortunate position of being an ITIL content contributor, of extolling the framework across my organization and beyond, and serving in a role that sees and influences its practical application. As with all things IT service management and ITIL, there is no 'one size fits all'. So, understand it, adopt it, adapt it, and make it part of your everyday continual improvement safety culture.

Hillary Rosenfeld ITIL Managing Professional, ITIL Strategic Leader, ITIL practitioner, coach, and trainer

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About this guide

This guide can be used as a study aid for candidates taking the ITIL 4 Strategic Leader Digital and IT Strategy qualification and as a quick reference tool for those who just want a high-level overview of key points from the AXELOS core guidance *ITIL®4: Digital and IT Strategy*. Although the guide does not include exhaustive examinable content, it is a summary for quick revision with specific references to the core guidance should you wish to read more (found in practical tabular format linked to learning requirements in Table 13.1).

Further information is also available in the practice guides on the AXELOS My ITIL platform (one year's subscription to My ITIL is included with any ITIL exam). In addition, you will find useful non-examinable content, including information on taking the examination, tips, key messages, and definitions highlighted throughout, with key figures to help with your understanding.

ITIL[®]4: *Digital and IT Strategy* focuses on the alignment of digital business strategy with IT strategy. It also covers how disruption from new technologies is impacting organizations and how businesses are responding.

Note that this title is not intended to replace *ITIL®4: Digital and IT Strategy* nor to be a substitute for a course provider's training materials.

1 Introduction

Digital technology has ushered in a new age of business, society, and economy. Things work differently today than they did just 20 years ago, and they will continue to change at unprecedented rates. But as different as the world is, many things have not changed. The best and worst of human nature finds expression through digital technology. The principles of business and commerce remain very much the same as they have for decades, if not centuries. An organization that embraces the changes brought by digital technology will be even more successful if it remembers that it exists for the benefit of the humans it serves and gainfully employs, and the environment in which it operates.

While digital technology creates new opportunities and capabilities, many of the principles and practices that have been learned over decades are just as important as ever, if not more so. Governance, leadership, service, and quality are not uniquely digital issues. Simply putting the word 'digital' in front of them will not absolve any organization or leader from having to define and implement them.

Digital technologies may make that task easier, but experience has shown that they also introduce more levels of complexity, volatility, and uncertainty. In most cases, the best way to achieve excellence is to rely on those things that will last beyond the most recent wave of technology innovation, and not to assume that new technology, having solved its own problems, will be able to solve yours.

ITIL®4: Digital and IT Strategy focuses on the importance and challenges of creating an appropriate digital strategy to enable businesses to succeed, and how both digital and IT strategies can and should be integrated and aligned with the wider organization's goals. It explores the use of the ITIL framework to support an organization in its

digital transformation journey by providing a structured and flexible approach for addressing service management challenges and utilizing the potential of modern, digital technology to keep the organization viable in a rapidly changing world. It also adds a new perspective to the ITIL suite and elevates the discussion around ITIL concepts to the strategic level among companies and business leaders.

Digital and IT strategy (DITS) is a means for real-world organizations to find better ways of meeting the needs of real-life communities using a combination of existing and emerging technologies. Some of these will require new practices and changes to the prevailing culture, but many will rely on existing practices and approaches. For strategy is not just about introducing innovation, but about building a future using a combination of the new and the old. Some readers may expect this publication to be a revelation of the 'next big thing' in strategy; however, research has shown that successful organizations have been doing many things right, and that they should continue to do them. Often we know those things that we should be doing, but aren't, and ITIL®4: Digital and IT Strategy can help you to get back on track. Our hope is that it will assist your teams to explore new ways of working, view emerging technologies and innovation through a new lens, have more meaningful conversations, and ultimately provide better products and services for everyone in society.

The Digital and IT Strategy course is designed specifically for digital leaders. The structure of the course was created to give leaders hands-on, practical experience using DITS concepts in a classroom environment, and is comprised of two elements:

• Case study assessment These are 'open book' practical assignments completed as part of a DITS class (described further in section 11.3), which allow students to explore, apply, and discuss DITS concepts with a small team of peers.

The level of thinking required for the practical assignments is Bloom's Level 4. Candidates need to 'analyse' the information provided and make a judgement on whether a course of action is effective and appropriate.

 Multiple-choice question (MCQ) examination This is a 'closed book' exam taken after candidates successfully pass the case study assessment (described further in section 11.4).

The level of thinking required for the examination is Bloom's Levels 2 and 3, that of 'comprehension' and 'application', respectively.

Candidates must pass both elements to earn the DITS designation. Chapters 2–10 of this guide detail key DITS content that is tested as part of the case study assessment and multiple-choice question examination. These two elements are covered in more detail in Chapter 11.

2 Using DITS in an organization

There are several tools and techniques that can help digital leaders craft an organization's strategy. This chapter will outline some of these key concepts.

$2.1 \ \text{The ITIL guiding principles}$

ITIL specifies seven guiding principles, outlined in Table 2.1.

Guiding principle	Description
Focus on value	All of the organization's actions must translate, either directly or indirectly, into value for the stakeholders. The focus on value encompasses many perspectives, including the experiences of customers and users.
Start where you are	Do not start from scratch and build something new without considering what is already available. There is likely to be a great deal in the current services, processes, programmes, projects, and people that can be used to create the desired outcome. Investigate and observe the current situation to ensure that it is fully understood.
Progress iteratively with feedback	Do not attempt to do everything at once. Even large-scale initiatives must be accomplished iteratively. It is easier to maintain a sharper focus on each effort, by organizing work into smaller, manageable sections that can be executed and completed in a timely manner. Using feedback before, throughout, and after each iteration will ensure that actions are focused and appropriate, even if circumstances change.
Collaborate and promote visibility	Collaborating across boundaries produces results that have greater buy-in and relevance to objectives, and more likelihood of long-term success. Achieving objectives requires information, understanding, and trust. Work and consequences should be visible, hidden agendas avoided, and information shared as much as possible.

Table 2.1 Description of seven guiding principles

Guiding principle	Description
Think and work holistically	No service, or element used to provide a service, works in isolation. The outcomes achieved by the service provider and service consumer will suffer unless the organization works on the service in its entirety. Results are delivered to customers through the management and integration of information, technology, organization, people, practices, partners, and agreements, which should all be coordinated to provide a defined value.
Keep it simple and practical	If a process, service, action, or metric fails to provide value or produce a useful outcome, eliminate it. In a process or procedure, use the minimum number of steps necessary to accomplish the objective(s). Always use outcome-based thinking to produce practical solutions that deliver results.
Optimize and automate	Resources of all types should be used to their best effect. Eliminate anything that is wasteful, and use technology to its full capabilities. Human intervention should only occur where it contributes value.

These guiding principles are essential for any organization pursuing a digital strategy. However, these are not the only principles an organization will use when creating and implementing its strategy. The strategy should include any principles that decision-makers need to use when implementing a strategic initiative, or when defining a lower level of strategy.

2.2 Vision and strategy

Digital transformation often requires new ways of thinking and working; it can also require an organization to change processes and systems that used to work well. The organization will need to move from its current way of working and institute new processes, practices, systems, and skills. It can be a daunting undertaking, but a clear digital vision can overcome fears and drive positive action.

2.2.1 What is a vision?

In recent years, many organizations have differentiated between their vision and their purpose. The purpose of an organization is the reason why it exists, or its core business. Whereas a purpose defines the business an organization is in, a vision is a defined aspiration of what it would like to become in the future. It encapsulates the objectives that it aims to achieve, usually within a stated time.

The purpose may be part of an organization's vision, but it should only be included in its vision statement if it is planning to change its purpose, or the way it intends to meet its purpose. Otherwise, it can be confusing when an organization embeds its purpose (what it already does), in its vision statement (how it will achieve its purpose in the future). These should be two separate statements.

The organization's digital and IT strategy must reflect and support its purpose, vision, and business strategy. A single group within the organization cannot achieve this outcome unless it collaborates with multiple stakeholders. The digital and IT strategy should not, therefore, be seen as the IT department's strategy, even if that department is responsible for defining and directing it.

Furthermore, the digital strategy defines the future state of the problems that the organization will solve for its customers. It also describes how customers will interact with the organization's products and services, and what its people, skills, and overall company will look like. A digital vision should promote this transformation, and foster understanding at all levels. This approach will persuade teams to assist in realizing the new reality.

2.2.2 Confirming the scope and defining the vision

A team can only define the vision and strategy of the areas for which it is responsible. Before defining the vision and strategy, the team should confirm the scope and ensure that someone with the appropriate level of authority over each area is included in the team. One role of the strategy management practice is to ensure that any vision or strategy is accurately scoped and led by those with the appropriate level of authority.

When defined, the vision is documented in the strategy. It might also be used in internal communications, as part of an awareness programme, and in other strategic initiatives. The vision should be communicated often and in a variety of ways. Leaders cannot expect it to be communicated once, remembered perfectly, and implemented immediately. The awareness programme should ensure that everyone understands their role within the larger vision, and how their actions contribute to the result.

Many organizations use a vision statement as part of their marketing. However, many aspects of a vision are not appropriate for external marketing, which may lead to two versions of the vision statement, with one (internal) being an element of the organization's strategy, and the other (external) a subset or paraphrased version for marketing.

2.2.3 Strategy structure and content

Strategy is a system of artefacts; this system can sometimes be complex. To create and manage it effectively, an organization needs to find a structure which supports and reflects its business model, architecture, organizational structure, and system of governance and control.

2.2.3.1 Strategy consists of many artefacts

Strategy is often associated with a single strategic planning document. In fact, there are many tangible artefacts that are used in the process of defining, achieving, and maintaining the organization's vision, position, and objectives. These include:

- strategic assessment
- positioning statement or analysis
- several scenarios indicating likely outcomes if certain variables are changed
- vision
- business model
- financial analyses of all options
- plan, or several related plans
- project and product portfolio, often together with an application portfolio
- detailed architecture of the future-state organization, infrastructure, solution, or some other aspect of the strategy
- risk analysis and treatment options.

As organizations face increasing rates of change, they recognize that strategies need to be updated more frequently, to be more accessible, and to be easier to read and track. Collaboration platforms and document-sharing make it possible to synchronize and manage the various artefacts of strategy more easily. Instead of describing each artefact in detail, this section focuses on the process of defining the overall strategy and managing the artefacts that result from that process.

2.2.3.2 Structure and content

Strategy artefacts are complex and contain a large amount of information. Yet a strategy must also be easily communicated to, understood by, and implemented by a diverse range of stakeholders.

A suggested structure is provided in Table 2.2, for those leaders responsible for defining, maintaining, and overseeing the implementation

of strategy. Each element is a section of a document or digital artefact and represents a view of the strategy, which is valid at any given time.

Table 2.2 Elements of a strategy document

Element	Description
Purpose and vision	This is the stakeholders' purpose in defining the strategy, and the vision that they aim to achieve. If this is not the enterprise strategy, these statements must show how they support the purpose and vision of the enterprise, or of any strategy that the stakeholders support.
Scope and authority	The strategy should clearly state which parts of the organization are included and which are excluded. This section should also indicate the authority that has been delegated to those responsible for implementing the strategy.
Context	A summary of the findings and recommendations of strategic assessment(s), together with information about where those assessments can be found. The context should include information about the internal and external environments, the desired position, the challenges the strategy seeks to overcome, and the opportunities it intends to exploit.
Objectives and key results (OKRs)	The specific objectives and measurable results that this strategy aims to achieve. This section might also specify which objectives are excluded from the strategy.
Budget and investment	The total investment anticipated for the strategy, together with any conditions or constraints.
Principles	These are the principles used when defining the strategy, and which form the basis for decisions made by stakeholders when implementing it. This part will also outline the thresholds that require a decision to be escalated to a more senior decision-maker. This section should include a reference to any policies relevant to the definition and implementation of the strategy.
Capabilities	An overview of key organizational capabilities and their current maturity, showing which ones need to be developed or expanded.

Table continues

Table 2.2 continued

Element	Description
Roadmap	A visualization of the major initiatives and milestones involved in implementing the strategy.
Initiative overviews	Detailed initiative plans are separate artefacts, and are defined and maintained by the leader and the initiative team itself.

2.2.4 Using business models for strategy planning

The creation of new business models, or changes to existing ones, usually translates into large and expensive organizational changes across organizational structures, value streams, practices, people, partner and supplier models, and information and technologies. An organization,

Contribution 7	Living purpose Being of service, future generations, vision, social responsinility, long-term perspective
Collaboration 6	Cultivating communities Community involvement, partnership, mentoring/coaching, employee fulfilment
Alignment 5	Authentic expression Openess, creativity, integrity, passion, trust, honesty, transparency
Evolution 4	Courageously evolving Accountability, transformation, innovation, continual learning, autonomy, empowerment, agility
Performance 3	Achieving excellence Quality, result-orientation, competence, self-esteem, productivity, efficiency
Relationships 2	Building relationships Customer satisfaction, connection, respect, listening, open communication
Viability 1	Ensuring stability Financial stability, profit, safety, health

Figure 2.1 The Barrett model

Reproduced with permission from the Barrett Values Centre (2020)

therefore, needs to approach changes to its business model and strategy with caution. It must ensure that the changes are made in response to appropriate triggers, to justify the effort expended.

An organization's business model adopts a strategic focus that depends on the organization's key values. The current version of the Barrett model, developed by the Barrett Values Centre (2020) and shown in Figure 2.1, describes organizational values, and can be used to define an organization's strategic focus.

An organization can focus more on its foundational needs and values (Levels 1-3), on its evolution and transformation (Level 4), or on its purpose and contribution to a common good (Levels 5-7).

2.3 Strategy discussion and approval

2.3.1 Portfolio optimization

It is critical that every strategy combines the development of new areas and the delivery of existing commitments.

Definition: Portfolio

A collection of assets into which an organization chooses to invest its resources in order to receive the best return.

Portfolio management encompasses several portfolios, including:

- product and service portfolio
- programme and project portfolio
- customer portfolio.

Portfolios can also be created to manage resources (e.g. applications), customer groups, business segments, etc. The key concepts behind portfolio management are the same regardless of the items being managed: they help to achieve optimal return on the investment from a holistic system of assets, as Figure 2.2 shows.



Figure 2.2 An organization's portfolios enable a return on investments

Portfolio management identifies and tracks investment in every service and product at every stage of its lifecycle, and links that investment to the anticipated and achieved value. The portfolio management practice is a valuable strategic tool that informs decisions on how to balance investment between new initiatives and existing operations.

2.4 DITS and the VUCA environment

2.4.1 VUCA

The number and magnitude of challenging events, and the rate of innovation, are increasing. The environment in which today's organizations operate is often described as volatile, uncertain, complex, and ambiguous (VUCA):

- Volatility The speed of change in an industry, market, or overall environment.
- **Uncertainty** The lack of predictability in an environment.
- **Complexity** The number of issues and amount of confusion that surround the organization.
- Ambiguity The lack of clarity and potential for misreading situations.

The pace of change is accelerating, the number of components in systems is growing, and cause-and-effect logic is becoming less linear. These changes are stimulated by digital transformation, the service economy, and other internal and external trends.

2.4.2 Ensuring the viability of digital organizations

General recommendations for acting in a VUCA environment are available from various publications. In the shortest form, they can be reduced to the recommendations given in Table 2.3 (based on Bennett and Lemoine, 2014; *A Guide to AgileSHIFT*[®] (AXELOS, 2018); and other sources).

Characteristic	Recommendation
Volatility	Prepare for variations by investing in extra resources
Uncertainty	Improve knowledge management and the quality of information
Complexity	Restructure for self-organization and agility
Ambiguity	Experiment to explore available options

Table 2.3 Recommendations for acting in a VUCA environment

2.4.3 Positioning tools for digital organizations

Strategic decision-makers need tools to help them evaluate opportunities and decide how to position their organizations in the digital world. This

decision will include a thorough understanding of the organization's position relative to:

- the markets and industries that the organization will be serving
- the desired levels of customer/market relevance and operational excellence
- which opportunities it will exploit (for both customer/market relevance and operational excellence)
- the value proposition for consumers in its targeted markets or industries
- which products and services it will deliver
- which business model will emerge as these decisions are made.

Since digital markets are in a constant state of evolution and disruption, there is currently no industry standard digital model or formula for success. However, several approaches have emerged based on analyses of successful companies.

Two major approaches are maturity models, and digital positioning and sense-making.

2.4.3.1 Maturity models

Maturity models are based on the idea that there is a set of characteristics or capabilities that increases an organization's chances of success in a digital world. An organization that cultivates these characteristics and capabilities will be in a better position to succeed as a digital organization.

Two types of maturity model are prevalent. The first focuses on the characteristics of the organization, regardless of the position it wants to attain. The second focuses on helping it to evolve from one level of disruption (usually organizational) to the next (either market or industry, and then ecosystem).

The limits of maturity models

Digital positioning is a deliberate and often fast-paced activity, which simultaneously balances multiple internal focus areas. Adopting and pursuing the maturity model as a primary approach can be timeconsuming. It can also focus the organization on the wrong set of variables to achieve its desired position.

Sometimes a maturity model is used as a substitute for rigorous strategic analysis and positioning. In these cases, the organization assumes that, as long as it complies with the maturity model, the eventual result will be the best possible outcome. This approach ignores the unique characteristics and variables of an individual organization, and does not fully represent the scope of opportunities for improvement or growth.

Maturity models can help identify the characteristics and capabilities needed to take a particular position. They are also helpful in defining initiatives to cultivate valuable characteristics and capabilities, but are inadequate for determining an organization's position. A maturity model is more helpful to an organization that has already defined its desired position, and wants to understand how it maps to other organizations that have already taken that journey.

Therefore, maturity models are not appropriate tools for organizations wishing to disrupt industries, markets, or ecosystems. These positions are not mature or established. Rather, maturity models are helpful to organizations that wish to follow in the footsteps of those that have already been successful.

2.4.3.2 Digital positioning and sense-making

As an alternative to maturity models, digital positioning goals can be defined and visually represented to reflect an organization's unique purpose, vision, and strategy.



Figure 2.3 Digital positioning assessment framework

Based on approaches to positioning, sense-making, and strategic mapping referred to in Beyond20's digital positioning model (Beyond20, 2020), Snowden's Cynefin model (Snowden, 2007), and Wardley's maps (Wardley, 2016).

The positioning framework shown in Figure 2.3 can also be used to define the positions of competitors and to indicate how an organization's position is likely to change in the near-to-medium term (as it executes its stated strategies). Depending on the visualization techniques used, the clustering of organizations in the digital positioning framework can be used to highlight the 'zone of competition', i.e. the strategic areas of focus that are likely to see the maximum competition. An organization may consider exiting the zone of competition as a way of ensuring long-term viability.

For example, in Figure 2.4, an organization might assess its position based on the AXELOS four pillars of digital transformation:

- business transformation (focused on the organization's business model)
- operational transformation (focused on the operation model and operational excellence)
- cultural transformation (focused on attitude and behaviour)
- experience transformation (focused on interactions with the organization's consumers and partners).

In Figure 2.4, we can see that organizations are clustering around experience and operational transformation. As a result, those within the cluster (the zone of competition) may have to invest more to maintain viability, or may choose to exit the zone to create novel competitive differentiation (i.e. one organization is moving out of the zone of competition, into 'cultural transformation').

The same organization might choose to assess itself against different, but equally valid, areas of focus articulated in the digital strategy, such as:

- physical presence
- digital presence
- use of emerging technology
- use of industry standard technology.

In Figure 2.5, the different strategic areas of focus change the positions of the same organizations, the direction of travel for each organization, and even what cluster forms the zone of competition. For this reason, digital positioning goals should be designed to reflect the organization's purpose and vision. The organization is also recommended to re-evaluate its position as frequently as possible to reflect changes in a VUCA ecosystem.



Figure 2.4 Positioning assessment framework focused on business, operational, cultural, and experience transformation



Figure 2.5 Positioning assessment framework focused on physical and digital presence, and the use of emerging and standard technologies

3 DITS and digital disruption3.1 Key concepts

This chapter presents key concepts that will help leaders navigate successive waves of technological innovation, and harness them to achieve ongoing relevance and viability of their organizations.

$3.1.1\,$ Digital, information, operational, and communication technology

Digital technology is any technology that digitizes something or processes digital data. It encompasses information technology (IT) and the parts of operational technology (OT) that have been digitized. It also depends on the use of communication technology. Thus, the term 'digital technology' refers to the merging of IT, OT, and communication technology to achieve levels of functionality and automation that are not possible with any of these alone (Figure 3.1).



Figure 3.1 Digital technology



3.1.2 Digital organization and digital business

A digital organization is an organization that is enabled by digital technology to do business significantly differently, or to do a significantly different business.

In this guide, 'digital business' refers to activities that use digital technology, enabling an organization to fulfil its purpose. The term 'digital organization' is used throughout to indicate an organization that is using digital technology as a basis for conducting the activities necessary to achieve its purpose.

3.1.3 Digitization and digital transformation

Digitization is the process of transforming something (e.g. text, sound, or images) from analogue to digital form by expressing the information in binary digits.

'Digital transformation' has different potential meanings, depending on the individual and the context.

None of the various interpretations is wrong, but they are too narrow. Also, leaders cannot define a digital or IT strategy if stakeholders are not aligned.

Different interpretations of 'digital transformation' by various roles

Chief executive officer: It is a hype, which is only relevant to the CIO and the IT division.

Chief information officer: *It is the emerging technology that provides innovative methods for performing business activities.*

Chief marketing officer: *It is a method for better engaging with current and potential consumers.*

Chief financial officer: *It describes an opportunity to significantly reduce costs with cloud technology.*

Chief operations officer: *It is a method for optimizing and automating operations.*

IT manager: *It is used to describe the implementation of a new ERP* (*enterprise resource planning*) system.

In *ITIL®4: High-velocity IT*, the following definition of digital transformation was introduced.

Definition: Digital transformation

The use of digital technology to enable a significant improvement in the realization of an organization's objectives that could not feasibly have been achieved by non-digital means.

Digital transformation is achieved by digitizing, robotizing, and other forms of automation that enable organizations to do things differently, or to do different things.

3.1.4 Products and services

The products and services that an organization offers are central to its strategy, as this is how it realizes its purpose and co-creates value.



Definitions

- Product A configuration of an organization's resources, designed to offer value for a consumer.
- Resource A person or other entity that is required for executing an activity or achieving an objective. Resources may be owned or employed by an organization, or contracted from a third party.
- Service A means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks.

The relationship between products and services is the basis for business decisions and which operating model it chooses to use; see $ITIL^{@}4$: *High-velocity IT* and $ITIL^{@}4$: *Drive Stakeholder Value* where the relationship is discussed in more detail.



Key message

Each of the services that an organization provides is based on one or more of its products. Organizations own or have access to a variety of resources, including organizations and people; information and technology; value streams and processes; and partners and suppliers. Products are configurations of these resources, created by the organization, that will potentially be valuable for its customers.

Products are typically complex and not fully visible to the consumer. The portion of a product that the consumer actually sees does not always represent all of the components that comprise the product and support its delivery. Organizations define which product components their consumers see, and tailor them to suit their target consumer groups.

Service providers present their services to consumers in the form of service offerings, which describe one or more services based on one or more products. Service offerings might include goods, access to resources, and service actions. Different offerings can be created based on the same product, allowing it to be used in multiple ways to address the needs of different consumer groups.

3.1.5 Tiers of strategy

Traditionally, approaches to defining strategy are based on a tiered model. An example of this model is shown in Figure 3.2. The organization's strategy is called the 'business strategy' or 'enterprise strategy'. The digital strategy is a subset of the business strategy, and applies to those parts of the business that will be impacted by digital technology. The IT strategy is separate, but supports both the digital enablement projects and the established parts of the organization.

In practice, though, the model for digital and IT strategy is far more complex. A more appropriate example is based on a clearer definition of business, digital, and IT strategy and is shown in Figure 3.3.



Figure 3.2 Traditional perspective of business, digital, and IT strategy

3.1.5.1 Business strategy

Business strategy is how an organization defines and achieves its purpose. Every organization has a business strategy. Some organizations maintain a formal set of processes and documents. Others rely on less-formal communication, decision-making criteria, and patterns of behaviour by the governing body and executives. A business strategy will encompass:

- a way of defining, refining, and communicating the vision of the organization
- a way of defining its objectives
- its business model
- a means of aligning the different parts of the organization's ecosystem to achieve its goals (e.g. organizations and people; information and technology; value streams and processes; and partners and suppliers)
- guiding principles that determine how decisions are made and what actions are taken
- agreement on which courses of action the organization will take and how to allocate resources to them (often in the form of strategic plans)
- a definition of what the organization will *not* do.

The organization's culture determines how it observes and enforces its business strategy; for example, whether it uses regulatory requirements. However, the organization's success depends on a relevant, cohesive, and clearly communicated strategy. Without such a strategy, it will fall behind its competitors.

3.1.5.2 Digital strategy

The term 'digital strategy' is commonly used to refer to:

- elements of the business strategy that are based on the use of digital technology
- a migration plan whereby an organization automates its activities or replaces outdated technology with digital technology.

These two statements imply that the business strategy is separate from the technology used to achieve it. Alternatively, they suggest that using digital technology is limited to optimizing the organization's performance. This concept is reflected in Figure 3.2, where the digital strategy is seen as a subset of the business strategy.



Digital strategy is a business strategy that is based on digital, usually emerging, technologies. A better illustration of how digital, business,



Figure 3.3 Revised perspective (example) of business, digital, and IT strategy

and IT strategies are related is shown in Figure 3.3. This figure illustrates how digital and IT strategies merge in response to an organization's growing reliance on technology. This result is achieved by seeking new opportunities and maximizing the use of current capabilities.

This guide discourages the practice of restricting the digital strategy to identifying which technologies an organization will use and how it will introduce them. At best, this approach is a digital technology programme or initiative, not a digital strategy.

Digital strategy is about understanding:

- how technology has changed, and how it has changed the world in which an organization operates
- whether the organization needs to respond to these changes or continue along its current course
- how to identify opportunities in the digital world
- the risks involved with each opportunity
- how to plot a course that exploits opportunities, and mitigates or avoids risk.

3.1.5.3 IT strategy

IT strategy is about understanding:

- how an organization's IT department supports its business goals
- which technology will be used to perform business operations
- how to utilize the technology envisioned in the digital strategy
- how to move to technology that supports the organization's objectives
- the nature and role of technology suppliers.

3.1.6 Business models

A business model describes how an organization should be configured to provide value to customers based on the strategy. It shows how every component should collaborate to provide value, rather than focusing only on how each product or service individually provides value. A business model must reflect the organization's system and the consequences of strategy.

An effective business model must meet the following criteria:

- provide a strong narrative regarding the organization's value realization
- use a viable financial model (e.g. calculating the costs needed to realize the model).

Business models form the foundation upon which an organization can build operating models, detailed further in section 9.2.

$3.2\,$ DITS and the service value system

An organization's existence depends on its ability to translate demand into services and products that are relevant and valuable to its consumers. Its strategy is based on its analyses of, and responses to, opportunities and demands in its environment. The subsequent plans, actions, and structures are defined in the service value system (SVS) and service value chain, which express the organization's strategy.

The SVS provides a description of how an organization's components and activities collaborate to enable value creation. Specifically, the SVS articulates both what an organization's strategy is and how it will be realized. Figure 3.4 depicts how strategy affects the SVS.

3.2.1 Opportunity and demand

Strategy formulation must also include a comparison of an organization's internal environment, such as current objectives and operations, with


Figure 3.4 The service value system

changes in its external environment. Changes in the environment can represent new business opportunities or variations in demand.



The way that an organization responds to opportunities and shifts in demand is referred to as its 'strategic position'.

An organization's unique value proposition (UVP) is a short statement that explains the unique value the organization provides. Such a statement is usually not the organization's complete strategic vision, although it might extract some of the wording. The complete strategic vision is also likely to contain specific details about revenue targets and the organization's internal environment.

3.2.2 Guiding principles

ITIL specifies seven guiding principles, which have been outlined in Table 2.1. These guiding principles are essential for any organization pursuing a digital strategy. However, they are not the only principles an organization will use when creating and implementing its strategy. The strategy should include any principles that decision-makers need to use when implementing a strategic initiative, or when defining a lower level of strategy.

3.2.3 Continual improvement

Continual improvement occurs at all levels of an organization. It can be applied to the organization, or to an individual product, service, technology, or organizational unit.

The strategy management process reflects the steps of the ITIL continual improvement model, which is described in detail in the strategy management practice guide. However, it is important to note that the purpose of making continual improvements is not always the same as that of defining and implementing strategy. The primary objective of strategy is to ensure that the organization continues to be viable in a changing environment, which may require improvement of existing capabilities, but more often aims at expanding or reducing its operation.

Continual improvement can be applied to an organization's strategy in two ways:

- The strategy management practice, its activities, and its outputs are subject to continual improvement (e.g. improving the communication of strategic plans).
- The improvement of the organization itself might be the basis for its strategy.

As the strategy evolves, it is important to update and reconfigure the practices, as this activity is an aspect of continual improvement.

A detailed discussion of the ITIL continual improvement model is included in *ITIL*[®] *Foundation: ITIL* 4 *Edition* and the continual improvement practice guide.

3.2.4 Practices

An organization's strategy specifies how it will achieve its objectives, by utilizing value streams at all levels of the organization. Practices utilize the processes, resources, partners, and technologies to contribute to the strategy. Three of these practices, strategy management, portfolio management, and architecture management, are used to map the organization's capabilities and assets to its desired outcomes.

Practices are created and configured to achieve specific objectives. We update and align practices when we are implementing a strategy, and as the strategy evolves, we continue to update and reconfigure the practices as a function of continual improvement. This includes continuously updating the organization's architecture, to show how each component contributes to the strategy, and to the performance required for an effective strategy.

4 DITS: the organization and its environment

Strategy is not a single process that starts at one point and ends neatly at another. Defining, planning, and implementing a strategy are cyclical activities, which are performed in multiple areas of the organization at the same time. Strategy requires a formal, defined set of activities that follow the continual improvement model.

Every organization fulfils a need within an environment, and continues to exist only because it continues to meet that need. This is the purpose of the organization.

An organization achieves its purpose by interacting with the environment; its strategy articulates this relationship. Successful strategies identify each key part of the environment that the organization interacts with, and the nature of those interactions. Strategy also identifies the capabilities that the organization will need to conduct those interactions successfully.

4.1 Environmental analysis

Environmental analysis encompasses three main areas:

- The organization's environment, often referred to as the 'external environment'. These are external conditions that affect the organization.
- The organization itself, often referred to as the organization's 'internal environment'.
- The interaction between the organization and its external environment.

Strategy defines the optimal configuration and activities of the organization, so that it can achieve its purpose in its environment.

DITS: the organization and its environment



Figure 4.1 The context of strategy applied to the four dimensions of service management and PESTLE

These three areas are increasingly complex, as waves of technological innovation continue to be disruptive. Several models have emerged to help organizations understand them. The model used in ITIL combines the political, economic, social, technological, legal, and environmental (PESTLE) factors for analysing the external environment with the four dimensions of service management for analysing the organization itself. The use of both approaches is particularly helpful in understanding the interactions between the two environments. This model is illustrated in Figure 4.1.

4.1.1 External analysis

There are several approaches to analysing the external environment. Porter's five forces model is helpful when evaluating the competitive dynamics in an environment (Porter, 1979). PESTLE is useful in categorizing factors influencing or constraining how an organization operates, as shown in Table 4.1.

Table 4.1 PESTLE: environment analysis factors and their influence on digital strategy

Factors	Description	Examples
Political	The influence of governments through policies (tax, fiscal, trade, labour, state ownership, etc.), stability, level of corruption, openness to influence, available subsidies, etc.	Governments may force or ban the use of certain technology platforms or applications
Economic	Factors determining the performance of an economy, such as inflation, interest rates, foreign exchange rates, demand/ supply models, foreign investment, unemployment rates, and consumer purchasing power	Economic fluctuations may affect affordability of consumer technologies; commoditization and adoption of technology solutions are closely related to the costs of provision and consumption
Social	A population's culture, attitudes, norms, values, demographics (such as age, income, location, and language), buying trends, mobility, etc.	Social movements for or against certain technology solutions, their vendors, or their countries of origin may change the technology adoption overnight
Technological	The level and impact of technology innovation, including focus on research and development, attitude to innovation and technology, incentives to use innovative technology, automation, etc.	Technology innovations affect existing solutions, sometimes by quickly replacing them completely

Factors	Description	Examples
Legal	Linked to political, but specifically legislation rather than policy, including laws related to discrimination, competition, employment, consumer protection, copyright and patents, and health and safety	Legislation regulating data processing, privacy and other information-related matters may limit, prohibit, or endorse the adoption and development of certain technologies
Environmental	Constraints or enablers linked to the availability (or scarcity) of natural resources, geography, climate, and pollution and carbon footprint targets	Environmental factors, especially disastrous ones, may interrupt or stimulate operation and adoption of certain technologies

4.1.2 Internal analysis (the four dimensions of service management)

As an image of the external environment emerges, strategy looks inwards to the organization. It seeks to understand ways to ensure the organization's success in its environment. Strategy uses internal analysis to determine:

- whether the organization has the capabilities required to achieve its purpose in the environment that it operates in
- whether current capabilities could be used to create new lines of business, products, or services
- where it might be possible to make the organization more effective or efficient in meeting its purpose.

The internal environment is described in *ITIL® Foundation: ITIL 4 Edition* as four dimensions of service management. These dimensions describe the organization's resources, and how they interact with each other and with the external environment to meet the organization's objectives. It is important to note that all four dimensions are critical for defining and implementing strategy.

4.1.3 Using the results of environmental analysis

Environmental analysis helps the organization to identify and articulate:

- the purpose of the organization
- the nature of its interactions with its environment
- the products and services it offers, and the needs that each one fulfils
- the size of the needs it will fulfil
- the constraints imposed by its environment
- the capabilities it will need
- how it will organize itself to fulfil its purpose (e.g. its business model)
- who it will need to cooperate with.

4.2 Opportunity analysis

Positioning is not just a matter of deciding which level of disruption an organization wants to pursue, or which aspect of its environment it wishes to focus on. As it investigates each area, several opportunities will emerge. For more information on levels of disruption, see section 5.2.

Opportunity analysis will identify which opportunities are viable and support the organization's strategy. It will also identify undesirable approaches, even those that appear attractive at first.

5 Using DITS to remain viable in the future

A vision is a defined aspiration of what an organization would like to become in the future. It may include the future-state picture of the problems that the organization will solve for consumers. It also describes how consumers will interact with the organization's products and services, and what its people, their skills, and the overall structure will look like.

Many executives would like their organization to be the next big digital success. Others would simply like to improve its ability to compete digitally. Either way, the changes demanded by the digital world are not trivial. It will take more than tweaking existing methods to reposition the organization's market position. The decisions that leaders make will impact how it works at every level and in every business unit.

This chapter covers some of the key behaviour patterns and characteristics that will ensure long-term viability, the different levels of disruption an organization can face, and the factors that affect strategic focus.

5.1 How to achieve strategic momentum

Strategic momentum is achieved in two main ways. First, the strategy should be concerned with the organization's long-term viability. Actions should be taken to ensure that the organization's trajectory is good over several iterations of strategy. The strategy must also remain relevant to the organization's changing environment.

Second, the actions taken to move the organization into the future must not stop it from meeting its existing commitments. It cannot stop operating to implement strategic initiatives: they must be implemented alongside current business operations.

$5.1.1 \ \ \text{Long-term momentum: ensuring organizational viability}$

An organization's viability is a fundamental outcome of its strategy. Internal and external environments, including consumer needs, are changing increasingly quickly and drastically, so the organization must be adaptable. Any organization's resilience will be tested by sudden or drastic events; its digital strategies may be accelerated or halted, and their priorities will change. Organizations that can recover, pivot, and progress in a new direction stand the best chance of long-term success.

Disruptive events create opportunities for organizations to become more Agile and Lean, to streamline and improve operations, to find and exploit new innovations and technology, and to deliver new and improved products and services to consumers.

$5.1.2\;$ Key behaviour patterns and characteristics for success

Section 3.1 in *ITIL*[®]4: *High-velocity IT* describes five behaviour patterns that organizations should adopt in order to succeed in digital transformation.

The first pattern, 'accept ambiguity and uncertainty', is directly linked to the VUCA model (section 2.4) and does not require explanation. However, the other four address the VUCA challenges in a less obvious way:

- Trust and be trusted
- Continually raise the bar
- Help get customers' jobs done
- Commit to continual learning.

These factors help to develop and maintain five important characteristics that help organizations operate in a VUCA environment:

- Lean
- Agile

- co-creational
- continuous
- resilient.

Key message

Organizational agility is an organization's ability to move and adapt quickly, flexibly, and decisively in response to events in the internal or external environment.

Organizational resilience is an organization's ability to anticipate, prepare for, respond to, and overcome adverse events in the internal or external environment.

Lean organizations are focused on the continual improvement of their value streams' workflows and the elimination of waste.

Continuous organizations are those that can provide uninterrupted delivery of products and services to consumers, to continuously meet changing needs and requirements and to adjust to the changing environment.

Organizations that are Lean, Agile, resilient, and continuous are better equipped for value co-creation in the form of services that can be easily adapted for ever-changing environments and customer needs.

5.2 Three levels of digital disruption

5.2.1 Digital disruption

Digital disruption occurs when digital technology causes a fundamental shift in how any aspect of the organization's internal or external environment functions. Successful organizations react quickly and appropriately to the disruption. The most successful organizations are those that use digital technology to disrupt the environment and gain an advantage. Digital disruption occurs at three main levels, illustrated in Figure 5.1 and described below.

At each of these levels, disruption can include increased market/ customer relevance and/or greater operational excellence.

Examples of industries experiencing digital disruption include banking, insurance, and healthcare. Markets can include different market segments (e.g. characteristic or needs-based segmentation) and are often broader than an industry. An example of a market is first-time buyers needing a mortgage.



5.2.2 Ecosystem disruption

Ecosystem disruption occurs when digital technology introduces a change that impacts organizations across multiple industries and markets. It also changes how multiple ecosystem factors work. These are outlined using PESTLE (see section 4.1). Organizations that wish to disrupt the ecosystem must be prepared to use disruptive digital technology across the business, in multiple market segments and industries at the same time.

5.2.3 Industry/market disruption

5.2.3.1 Industry disruption

Industry disruption occurs when digital technology introduces a change that impacts a specific industry (e.g. manufacturing, finance, retail, or mining) or a group of related industries (e.g. e-books and self-publishing have disrupted printing, publishing, and retail). Organizations choosing to disrupt an industry will do so by using the technology in one of two ways:

- to compete more effectively and increase the market share, by either bankrupting or acquiring competitors
- to spin off a new organization, which sells the new technology as products or services to its competitors.

Although industry disruption might be an objective, it is usually the result of pursuing operational excellence.

There is no guarantee that disruptive technology will provide a competitive advantage. When the new technology is publicly known, it opens the market for competitors who may gain an advantage through better delivery or the further development of the technology.

5.2.3.2 Market disruption

Market disruption occurs when digital technology introduces a change that impacts a particular market or market segment. For example, a cosmetics retailer could use technology to change how consumers research and buy cosmetics.

As with industry disruption, market disruption can be an objective in itself. It could also be the result of improving products and services, distribution and delivery methods, or customer engagement models. Market disruption can sometimes be based on replicating the success of one market in another. Another form of disruption is the result of using existing capabilities to create new or reimagined products or services in another market.

5.2.4 Organizational disruption

The majority of organizations are not disruptive by nature. They have mature and well-established markets, products, services, and operations. However, disruptions to their markets or industry require them to recover or preserve their position in the market.

Such an organization will need to use the technology that has already disrupted its environment to remain competitive. It will need to embrace the external disruptions, and disrupt itself. In some cases, the organization may become so successful that it emerges as a leader, and the new innovative culture that emerges enables it to disrupt the layers above it.

5.3 Factors influencing strategic focus

Organizations wishing to disrupt a particular layer will find a range of strategic approaches available to them. Some of these will be more focused on understanding consumers and their requirements, and

providing new and unique services and products to meet those requirements. These approaches are geared towards improving an organization's customer/market relevance. Other approaches focus on helping an organization to perform more efficiently and deliver better and cheaper products and services. These approaches are known as 'operational excellence'.

5.3.1 Customer/market relevance

Organizations focusing on customer or market relevance as a basis for disruption will try to change the basic customer experience, customer journey, and behaviour of customers, influencing their demand for new products or how they engage with the organization. This outcome is often achieved by driving innovation into the market, by either creating new markets or transforming the existing market. Organizations taking this approach will primarily focus on staying relevant to customer needs or market dynamics as they change.

5.3.2 Operational excellence

Organizations focusing on operational excellence as a basis for disruption will use technology in innovative ways to obtain higher levels of performance and quality with lower cost, improved productivity, and reduced waste.

5.3.3 Internal and external focus

When crafting a digital vision, some organizations (primarily businessto-consumer ones) look outwards and ask questions such as:

- What markets do we serve?
- What products and services do we currently provide to the market? Are they valuable?

- What opportunities are there for growth or disruption? What threats do we face?
- What capabilities do we have that open new avenues for us in existing or new markets?

Other organizations strategize by looking inwards and asking:

- What do we need to do to continue doing business?
- What do we need to do differently?
- How do we manage the risk associated with each opportunity?
- How do we monitor and control our journey?
- How can we improve operational efficiencies?
- How can we reduce costs?
- How do we get to where we want to be?

$5.3.4 \ \text{A balanced approach}$

Regardless of the starting point, strategies will touch on both customer/ market relevance and operational excellence. However, devising a strategy to deliver new products to a new market will not be effective if the organization's operational capabilities cannot progress with the demand. Conversely, improving the organization's performance or reducing cost will not have much impact if there is no demand for its products or services.

6 Strategic approaches for digital organizations

A digital organization's strategy expresses its values and business model. The strategic focus and supporting approaches differ depending on the key values (e.g. from lower to higher levels of the Barrett model, as discussed in section 2.2.4). The approaches adopted and developed at the lower levels are likely to remain valid and useful when the organization evolves to the higher levels. The five key focus areas of strategic approaches include:

- customer/market relevance
- operational excellence
- evolution
- social responsibility and sustainability
- financial aspects.

6.1 Approaches for customer/market relevance

When an organization has decided on the focus and structure of its business model, it will need to define specific approaches to achieve and maintain customer and market relevance. The following sections provide an overview of several approaches, tools, and techniques that can help an organization understand the challenges posed by customer needs, elevate the customer experience, and retain customer and market relevance.

6.1.1 Customer journeys

Customer journeys, defined in more detail as part of *ITIL®4: Drive Stakeholder Value*, are the sum of experiences that customers have with a service provider. From a strategic perspective, they provide insight about service consumers, leaders, and other key stakeholders.



Definition: Customer journey

The complete end-to-end experience that service customers have with one or more service providers and/or their products through touchpoints and service interactions.

The key aspect of this approach is centred around the customer journey, which provides a view into how a customer or user interacts with a product or service.

Design thinking has become an important framework for ensuring a customer-focused approach, by using it to solve problems through empathizing with the person experiencing the problem. It is a form of human-centred design, and is used to solve highly ambiguous problems that are complex and not yet understood. Design thinking typically involves a series of steps, requiring time to empathize and define the problem statement before developing a potential solution.

6.1.2 Omnichannel delivery and support

Another approach is the use of an omnichannel strategy. The objective of a seamless omnichannel approach is to ensure continual customer engagement across multiple communication and delivery channels, both online and offline, to deliver consistent and positive customer experiences. For example, a shopper is able to explore products from a home computer, then go to the store, complete the sale on a mobile phone, and track the item's delivery. This concept is discussed in more detail in *ITIL®4: Drive Stakeholder Value*.

6.1.3 Context-sensitive delivery and support

An organization must tailor its approach to customers through its response to situations where the customer is on their journey. It is important to understand the customer and their desired outcomes, to encourage customer engagement. This can be achieved by evaluating the context of all interactions captured to drive insights and become more responsive. There are three aspects to consider when developing a context-sensitive approach:

- evaluating interactions
- building feedback mechanisms
- developing analytical capabilities.

6.1.3.1 Customer analytics

Collecting, analysing, and understanding vital customer data and analytics should drive strategic decision-making across the organization. Information about how and why customers have engaged with the organization in the past, and their demand for new and future products and services, can point to gaps in the organization's portfolio and performance.

6.1.3.2 Customer 360 approach

Customer 360 is an approach that has been used by organizations over the years. It uses the advances in digital technology, specifically data virtualization and analysis, to analyse consumers' needs, preferences, and behaviours. The Customer 360 approach focuses on obtaining data from multiple sources, such as internal customer relationship management and financial systems, and external social media feeds. This data is then integrated into a comprehensive view of the consumer's relationship with the company, and of other environmental influences.

6.1.3.3 Staying relevant: evaluating and responding to customer feedback

The ability to obtain close to real-time feedback and evaluation is critical to maintaining customer relevance. The most successful digital companies maintain a singular focus on customer needs. New or changed products and services are derived from interactions with, and an understanding of, customer needs.

6.2 Approaches for operational excellence

Organizations must also focus on operational excellence, otherwise attempts to use technology to benefit the customer will be inconsistent, short-lived, and ineffective. Operational excellence impacts the effectiveness of the four dimensions of service management.

Organizations use operational excellence to gain a competitive advantage and create value in the following ways:

- Scale advantage These are organizational models based on building a competitive advantage by growing the organization or its customer base.
- Incumbency advantages The first organization to enter the market often becomes the preferred provider. New entrants must overcome a lack of credibility, and provide higher-quality or more specialized competitive products or services.
- Resource-based advantages Organizations rely on the fact that they have access to resources that other organizations do not. To enable a resource-based competitive advantage, the resources are valuable, rare, non-replicable, durable, and organization-specific. These include company secrets, patents, culture, etc.

The following sections cover some approaches that support operational excellence.

6.2.1 Automation

A cohesive approach to automation can improve the customer experience and operational excellence. Automation provides new products and services, and changes an organization's strategy, business models, and overall vision. The use and benefits of automation are continually changing, and can be configured to complement the organization's environment.

Automation strategies are aimed at improving performance or expanding operational activities to accommodate growth. Three levels of automation are illustrated in Table 6.1.

Level of automation	Description
Simple automation	The ability to automate commonly performed actions or decisions. These strategies are aimed at reducing cost and increasing speed, but do not change the fundamental operation of the organization. With this type of automation, closed and open feedback loops are identified and automated (e.g. simple automation might include the automation of a business process such as a service request).
Complex automation	The ability to coordinate several simple but related automated activities or decisions. Complex automation, for example, might include the automation of several related processes, such as employee onboarding or the automation of several components of a value stream.
Intelligent automation	The ability to automate commonly performed actions or decisions differently depends on shifting contexts or objectives; for example, using artificial intelligence to automate decision-making in a loan application process, involving the analysis of multiple variables before moving on to the next step. Infrastructure as code is another example of intelligent automation.

Table 6.1 Descriptions of the three levels of automation

6.2.2 Service optimization

Service optimization strategies are continual improvement strategies, aimed at improving the quality or performance of a specific service. The service must be assessed, to determine whether it is involved in achieving the organization's objectives and fulfilling customer needs, before embarking on an optimization strategy.

6.2.3 Technology modernization

These strategies are aimed at improving performance and efficiency, by replacing ageing technology that has become too expensive to maintain, or inappropriate architectures that are unable to support the functionality or performance required by changing business needs.

6.2.4 Sourcing strategies

Shadow IT is now an accepted business practice in many organizations. However, the potential lack of control over supplier relationships and contracts, along with a lack of oversight of technology investment, requires strategies to arrange sourcing.

ITIL®4: Create, Deliver and Support explores outsourcing strategies and common service integration and management models: service guardian, single provider, retained service integration, and service integration as a service.

6.2.5 Workforce strategies

Workforce strategies should also be considered when trying to achieve operational excellence. This includes hiring for the future technical and soft skills that the digital organization will need. It also involves effective onboarding, training and development, and employee engagement programmes. Employees, partners, and suppliers should clearly understand the organizational goals, expectations, roles and responsibilities, existing processes, value streams, and practices needed for consistent performance, and for identifying and implementing improvements (see the workforce and talent management practice guide).

6.2.6 Employee 360 approach

Similarly to the Customer 360 approach, the Employee 360 approach uses advances in digital technology, specifically data virtualization and analysis, to analyse employees' needs, preferences, and behaviours. The Employee 360 approach focuses on obtaining data from multiple sources, such as internal systems and external social media feeds. This data is then combined to provide a comprehensive view of the employees' experience.

6.3 Approaches for evolution

Organizations that base their business model on the ability to utilize emerging opportunities need to be innovative and Agile, embrace organizational changes, and continually develop new competencies. There are many approaches to developing these traits, some of which are described in the core guidance, *ITIL*®*4: Digital and IT Strategy.* A brief overview is provided below.

6.3.1 Innovation



The definition highlights the fact that, on its own, novel technology or ways of working are not innovations, and do not necessarily improve a

situation. Novel technology is required for innovations to happen, but just because it is new is not sufficient. Novelty does not guarantee innovation: technology and approaches are only innovative if their adoption leads to improved value. The key capabilities essential for an organization to benefit from innovations are:

- research and development to generate and identify innovation opportunities
- continual analysis of opportunities
- effective implementation of selected technologies or ways of working.

See Chapter 8 for more information on managing innovation.

6.3.2 Agility and resilience

External influences could be political, economic, social, technological, legal, or environmental (PESTLE). Resilience cannot be achieved without a shared understanding of the organization's priorities and objectives. This approach sets the direction and promotes alignment, even when external

Definitions

- Organizational agility The ability of an organization to move and adapt quickly, flexibly, and decisively in response to events in the internal or external environment.
- Organizational resilience The ability of an organization to anticipate, prepare for, respond to, and overcome adverse events in the internal or external environment.

circumstances change. In extreme situations, resilience is provided by effective continuity, when normal capability to adapt to changing circumstances is insufficient. Agility supports resilience by enabling the internal changes required to adapt to external influences.

For more information on achieving organizational agility and resilience, see the strategy management practice guide.

6.3.3 Organizational change management

An organization cannot evolve without an effective and established organizational change management (OCM) practice. People are responsible for behavioural changes, which are a response to changing circumstances.

Stakeholders must display presence, consciousness, self-leadership, and responsibility when embarking on efforts to change behaviour. Throughout the whole organizational change lifecycle, it is important to focus on the individuals involved in the change, the relationships between them, and the systems in general.

To achieve effective and sustainable organizational changes, an organization should:

- create and maintain a change-enabling culture across the organization
- establish and maintain a holistic approach and continual improvement for OCM
- ensure that organizational changes are realized in an effective manner, satisfying stakeholders' needs and meeting compliance requirements.

These actions can be supported by following these principles:

- clear and relevant objectives
- strong and committed leadership

- willing and prepared participants
- sustained improvement.

An organization's leaders should adapt these principles to achieve the desired outcome. For more information on these principles and the OCM practice, see the organizational change management practice guide.

6.3.4 Knowledge management

Continuing professional development and effective knowledge management are essential for an organization's evolution. The ability to learn depends on the organization's absorptive capacity.

To achieve effective and continuing knowledge management, an organization should:

- create and maintain valuable knowledge and utilize it across the organization
- effectively use information to enable decision-making across the organization.

For more recommendations on achieving these aims, see the knowledge management practice guide.

Definition: Absorptive capacity

An organization's ability to recognize the value of new information, embed it into an existing knowledge system, and apply it to achieve the intended business outcomes.

6.4 Approaches to social responsibility and sustainability

The concept of a sustainable organization evolved from a focus on environmental matters to a wider understanding of sustainability. It is a key feature in the vision and strategy of many organizations, and is increasingly important within the context of VUCA business environments.

The social aspect of sustainability includes employee fulfilment, which is based on the concept of employee wellbeing and continuing development. It has now expanded to include the employee's need for purpose.

Definition: Sustainability

A business approach focused on creating long-term value for society and other stakeholders by addressing the risks and opportunities associated with economic, environmental, and social developments.

6.4.1 Triple bottom line

Organizations are moving from a focus on profitability to the triple bottom line, an approach that covers economic, social, and environmental aspects, as shown in Figure 6.1 (Bordoloi *et al.*, 2018). The triple bottom line marks a shift from short-term financial goals to long-term sustainability goals. Sustainability goals improve an organization's reputation and drive stakeholder value for customers, employees, and society in the form of better health, climate, and resource utilization.



Figure 6.1 The triple bottom line model

6.4.2 Employee fulfilment

The concept of employee engagement positioned employees as stakeholders. Organizations now acquire and retain talent and drive innovation by meeting employees' individual needs. The evolution of workforce and talent management exceeded the traditional focus on commitment, satisfaction, and discretionary effort. Nowadays, organizations must also focus on the employees' sense of purpose (PricewaterhouseCoopers, 2018).

See the workforce and talent management practice guide for information on organizational culture and conscious leadership.



6.5 Financial aspects of DITS

The financial aspects of the strategy should reflect and support organizational goals and customer needs. The successful delivery of business models for new or enhanced products and services in a rapidly changing digital environment depends on an appropriate level of funding. It also requires the appropriate funding strategy for the various conditions and needs.

Agile organizations tend to treat strategic funding differently compared with more traditional environments. Whereas a traditional organization may fund large, multi-year projects and programmes, Agile organizations often break funding down into smaller, experimentationdriven decisions, which allow them to react in a nimbler fashion to new data from the industry, market, and/or customers. They also tend to provide funding at the team level and across value streams.

6.5.1 Funding projects, products, and services

It is worth noting that not all projects are strategic, but they may require expenditure over and above the operating budget. Non-strategic project investments include:

- replacing existing technology with cheaper, more efficient technology without changing any other aspect of the performance, process, or activity
- ensuring that non-compliant components begin to comply.

The organization's executives must ensure that such investments are within the scope and policies set by the financial strategy.

6.5.2 Balancing the cost of innovation and operation

While dedicated research and development units and innovative projects drive strategic growth, Agile organizations also recognize that innovation must be part of their culture and ongoing business practice.

Every operational budget and every employee's objectives should include some level of innovative activity. Great ideas can come from all parts of the organization, particularly those closest to the work and in customer-facing roles. Ideas might be focused on improving existing products or services, processes, and working practices. Many larger, transformational ideas and resulting strategies have originated from operational staff.

6.5.2.1 Full cost recovery model (working capital fund)

Organizations are adopting full cost recovery strategies, where operating expenses are recovered from internal and external customers, to maintain operations while driving innovation and establishing new capabilities. This type of strategy is typically used by internal functions within an organization to encourage them to operate as a business. Such a model is referred to as a 'working capital fund'.

6.5.2.2 Operational vs capital expenditure

Capital costs or capital expenditure (capex) is the cost of purchasing or creating resources that are recognized as financial assets (e.g. computer equipment and buildings). The cost of fixed assets depreciates over multiple accounting periods. This is reflected in the cost of resources, products, and services within each period. Only depreciation (the agreed portion of the initial cost) is included in the costs within each period.

Funding technology as an operational expense (paying only for what is consumed) makes it possible for organizations to move quickly from one solution to another as opportunities emerge in external factors (e.g. in any part of PESTLE). However, moving from a capital expenditure to an operational expenditure model is not just a matter of switching between accounting categories. Subscription-based models enable an organization to gear its consumption of services towards supporting its objectives. They also make it possible to scale services to reach a broader range of consumers.

6.5.3 Charging models

A variety of strategies can be used to determine pricing for organizations that sell their services to external customers. For existing products and services, pricing must remain competitive within the market and competition, and costing models will be built to understand the cost, price, and profitability of products and services delivered to consumers.

Pricing strategies might allow for short-term, increased pricing and margins for new and innovative products and services that do not have competitors. In today's digital age, however, with the rapid rate of change, competitors will quickly catch up with the new products and services. The impact of the long-term pricing of products and services must be considered.

When services are offered within the organization, unnecessary spend can be limited by making the costs of technology visible to customers and sponsors. To do so, the organization must have a strategy in place for sharing internal, service-based costing. This approach helps to ensure that internal costs are low and improvement opportunities are regularly identified, so that consumer prices remain competitive. Some examples of common digital charging models are listed in Table 6.2.

Table 6.2	Examples	of	common	digital	charging	models
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Туре	Description
Free	Offer a free-to-use product or service that is supported by other forms of revenue, such as advertising or referral/affiliate
Freemium	Offer a free-to-use product or service that is supplemented by additional paid packages
Tiered	Offer different packages with increasing levels of features at different price points
Dynamic/variable	Seven types of dynamic pricing are shown (Sahay, 2007)

Risks and opportunities

Developments in digital technology offer unprecedented opportunities, but are also inherently disruptive and risky. It is no overstatement to say that digital transformation can either propel an organization towards success or put it out of business.

Fortunately, an organization's ability to capitalize on opportunities and innovate enables it to succeed in changing environments. As such, this chapter will also discuss a variety of approaches to innovation.

7.1 Risk management

At a tactical level, risk management is about identifying ways to combat existing and new threats and vulnerabilities. At a strategic level, it is about ensuring the success of the organization in an environment where the rules have changed because of digital technology.

7.1.1 Definitions

The ITIL risk management practice guide contains a definition of risk and a description of risk management and its associated concepts and activities.



Definition: Risk

A possible event that could cause harm or loss, or make it more difficult to achieve objectives. Can also be defined as uncertainty of outcome, and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes.

When an uncertain outcome would result in harm or loss, the risk is negative. When the uncertain outcome would result in benefits for stakeholders, the risk is positive. Positive risks are sometimes also called 'opportunities'.

The purpose of the risk management practice is to ensure that an organization understands risks and deals with them effectively.

7.1.2 Risk management in digital organizations

The risk management approach will vary depending on the transformation paradigm an organization uses. An organization that uses a process-based paradigm might start by assessing its current state, defining its desired future state, and identifying the risks associated with moving from one to another. An organization using a model-based paradigm would start by identifying potential business cases and evaluating the risks associated with each.

$7.1.3\,$ Organizing and using risk management to evaluate opportunities

The organization's governing body is ultimately accountable for implementing an appropriate risk management framework. Executives are responsible for overseeing and directing efforts in a manner consistent with that framework.

Not all of the opportunities presented by digital technology will take the organization to where it wants to be. Organizations use risk management to determine which opportunities are likely to help it achieve its objectives and which are likely to have little or no return, or to harm it.

7.1.4 Risk identification

Virtually all disciplines use frameworks for understanding and managing risk. Each has a prompt list of risk categories that can be used for

identifying risks. Practitioners can expand the scope of risk identification to include the impacts of digital technology by using the concept of disruption, innovation, cybersecurity, and engagement (DICE).

7.1.4.1 Disruption risks

Definition: Disruption risks

Risks that can disrupt the organization's operating or business model.

In the context of digital technology, disruption risks often relate to how a competitor uses digital technology to drastically change the customer experience or the way an industry operates, achieving an advantage over organizations that are slower to adopt the technology. Disruption risks can also come from consumers when they demand a better experience, or when their use of digital technology necessitates a shift in how services are provided.

7.1.4.2 Innovation risks

Innovation is risky by nature. For this reason, innovations are developed and tested in controlled environments, with prototypes and minimum viable products being assessed before the business bets its future on them.



7.1.4.3 Cybersecurity risks



As organizations collect, store, mine, and analyse sensitive data (such as consumer or financial data), they become increasingly large and attractive targets for malicious behaviour. Decentralized data collection and dissemination exposes the organization to more channels for information theft and loss.

7.1.4.4 Engagement risks

Digital organizations depend on engaging with a range of stakeholders to ensure their success. Risk is increased if they engage with unsuitable partners, or if their engagement models do not detect changes in the stakeholders.

Engagement risks can be identified by due diligence checks at the early stages of the relationship (the 'engage' step of the customer or employee journey; see *ITIL*[®]4: *Drive Stakeholder Value* and the workforce and



Definition: Engagement risks

Risks that originate from an organization's stakeholders, including its suppliers and partners, consumers, and employees.
talent management practice guide for further information). More proactive and reliable risk identification can be achieved when the due diligence checks are automated and enhanced by machine learning.

7.1.5 Qualitative risk analysis

Qualitative risk analysis is used to determine the likelihood that a risk will occur and the impact that it will have if it does. Because it is impossible to address every risk in depth, qualitative risk analyses help to prioritize which risks need to be treated first and how much effort to expend on them. There are different types of qualitative risk analysis, including risk matrices and scenario-based analyses.

7.1.5.1 Risk matrix

The risk matrix, shown in Figure 7.1, shows the potential impact of the risk on the *y*-axis and the likelihood of the risk on the *x*-axis. This matrix can be used for both negative and positive risks, although it is primarily used to assess negative risks.



Figure 7.1 Matrix example for qualitative risk analysis

Organizations work to eliminate negative 'high' risks first, because they are potentially catastrophic. 'Low' risks are low impact and low likelihood; organizations often choose to accept them without taking proactive action. They will, however, continue to monitor 'low' risks in case they become 'medium' or 'high'. 'Medium' risks are the best candidates for risk modification or sharing.

7.1.6 Quantitative risk analysis

Quantitative risk analysis techniques attempt to place a monetary value on risks. These approaches are complex and require significant research and analysis. They are generally only used when a risk exceeds a pre-defined threshold.

7.1.7 Risk posture: balancing the risks and rewards of digital technology

'Risk posture' refers to an organization's overall approach to identifying, analysing, planning for, responding to, and managing risk. Risk posture is described in the risk management practice guide, but this section provides an overview of the major concepts and their use in defining and managing strategic risk.

A major part of defining strategy is articulating exactly how much risk the organization is willing to accept in pursuit of its objectives. The terms used to describe an organization's approach are outlined in Table 7.1.

Term	Description	Example
Risk capacity	The total amount of risk that an organization can tolerate	The total negative impact of risks in the risk register must be lower than \$100 million
Risk appetite	The degree to which an organization will embrace negative risk in pursuit of its objectives	Executives must seek board approval for any project with a negative risk value higher than \$50 000

Table 7.1 Concepts that define an organization's approach to risk

7.1.7.1 Risk attitude

Risk attitude consists of a typical response to risk, based on risk capacity, appetite, tolerance, and thresholds. It does not just apply to organizations, but to individual stakeholders as well. It is not only important to understand the organization's attitude to risk, but also to identify how and why individual stakeholders may support or resist a particular opportunity.

The terms used to describe risk attitude vary. Some that are frequently used are:

- **Risk-averse** Risk-averse organizations and individuals overestimate negative risks and underestimate positive risks. They are likely to defend their current situation and resist any strategy that requires radical change. These organizations are unlikely to pursue digital opportunities as a way of disrupting the market. Rather, they focus on using new technology only when they are in danger of losing their position in the market, and will tend to only deploy solutions that have been tested by other organizations.
- Risk-seeking Risk-seeking organizations and individuals underestimate negative risks and overestimate positive risks. They are likely to rush into opportunities before fully considering all the negative risks involved.

- Risk-tolerant Risk-tolerant organizations and individuals have an uninvolved attitude towards risk. They do not try to mitigate negative risks and do not actively pursue positive risks. These organizations' digital strategies are unlikely to discuss digital transformation. They may believe that their existing customer base and business model are unassailable.
- **Risk-neutral** Risk-neutral organizations and individuals take a long-term approach to risk. They assess both positive and negative threats as part of evaluating opportunities that are part of a digital and IT strategy. This is the healthiest risk attitude.

7.1.8 Risk treatment

'Risk treatment', or 'risk mitigation', refers to the policies, plans, processes, and tools used to prepare for and lessen the impact of risk on the organization. Risk treatment generally falls into the following categories:

- Risk retention or acceptance The organization decides that the impact or probability of a potential risk is not worth the investment required to prevent it. The initiative will proceed without any countermeasures being implemented.
- Risk avoidance The organization decides that the impact or probability of a risk is too high or that it would be too expensive to prevent. It therefore decides not to pursue the opportunity or initiative.
- Risk-sharing or transfer The organization invests in a partnership whereby the partner takes some or all of the risk or indemnifies the organization against the impact of that risk. Although an organization can transfer the management of risk, it cannot transfer its accountability.
- **Risk modification or reduction** Steps are taken to reduce the impact and/or probability of a risk.

7.1.8.1 Achieving a risk-informed mindset and culture

Executives play a vital role in creating a risk-informed mindset and culture, including determining the organization's risk posture and attitude. The role demands that leaders engage in awareness and communication activities to promote understanding among all employees. It culminates in approving the actions the organization will take to treat risks.

Being risk-aware is not the same as being risk-averse. Leadership should not over-react to every possibility of a negative outcome and fear taking any risk. Instead, a risk-aware mindset encourages leaders to consider, in advance of a risk manifesting, how the organization will react. No organization can predict and prepare for every risk, but risk-aware organizations develop a good understanding of the most relevant risks and prepare accordingly.

7.2 Innovation

An innovation can be small and incremental or large and transformative, and it can take many forms. Innovation includes changes to products or services, the organizational structure, supply chains, or the customer experience.

Some innovation is minimally disruptive: it changes how existing activities are performed without changing how the organization functions as a whole. Other innovations, those that bring the most long-term competitive advantage, are called 'discontinuous innovations'.



Discontinuous innovations require organizations to think and work differently, often changing their business and operating models.

Whether innovation is being used to enhance existing capabilities or as a means to disrupt an entire ecosystem, it enables digital transformation. How well an organization innovates determines how well it will compete and survive in the long term, so innovation is an essential skill for individuals, teams, and organizations. Unfortunately, most organizations do not understand innovation. Very often, even when they do, they lack a disciplined innovation process.

7.2.1 Managing innovation is a strategic capability

The purpose of managing innovation is always the same: to enable an organization to succeed in a constantly changing environment. Some innovations will be used to determine the organization's strategic position. Other innovations will be used to perform existing activities more efficiently or effectively, enabling the organization to outperform competitors who offer similar products and services.

Digital leadership is not about being as innovative as possible or reacting to the innovations that an organization faces. It is the deliberate art of selecting, and then building or applying, those possibilities that will give an organization the greatest chance of success.

7.2.2 Managing innovation is a mindset and culture

It is critical to understand that innovation is only viable if it solves a customer problem; if it does not meet this criterion, it is a waste of time. Further, innovation should not be limited to an organization's R&D or innovation team. Some of the best ideas for innovation come from frontline workers who regularly interface with customers. They see the struggles, frustrations, and unsolved needs that customers face.

Therefore, there must be mechanisms in place to capture and act on their ideas.

7.2.3 Formal approach to innovation management

Innovations are characterized by uncertainty, risk, and complexity, so it is important to develop a formal yet flexible structure, system, and methodology for developing and implementing new innovative products.

Many organizations have a centralized innovation management team that facilitates or manages the process of innovation from idea generation to implementation. However, the actual innovation is performed by subject matter and business experts under the authority of executives or managers in the organization.

Innovation is a collective process; creating a sense of shared purpose is essential. Key activities include:

- generating new ideas
- filtering new ideas
- incubating ideas
- evaluating ideas
- selecting ideas
- identifying and chartering a team to build and test the innovation
- developing prototypes
- designing, developing, and testing ideas.

7.2.4 Characteristics of organizations with an innovative culture

Innovation requires a new mindset and new ways of working, skills, and combinations of skills. Despite technological progress, innovation has much more to do with culture.

There is no single correct way of fostering an innovative culture. However, many innovative organizations display some of the following characteristics:

- Leadership commitment to innovation at all levels
- Hiring for the skills of tomorrow
- Nurturing curiosity in employees
- Creating a 'safety culture' where employees feel safe
- Learning from failure
- Collaboration and problem-solving (not just coordination)
- Focus on consumers and value
- Commitment to continual learning and skill-building
- Alignment of reward and incentive mechanisms with innovation goals
- Acceptance of continual improvement as the norm.

7.2.5 Building a culture that supports innovation

Creating a culture that supports innovation is not a short process. Acting on innovation often requires a multi-phased, incremental approach. Although the path towards an innovative culture will be different for every organization, it is useful to consider the following recommendations:

- Educate executives
- Work with workforce and talent management
- Evangelize digital technology opportunities
- Provide learning tools
- Give employees time to train, learn, and job-shadow
- Give employees the freedom to experiment
- Encourage teams to incorporate learning into every day
- Establish a market intelligence practice.

7.2.6 Approaches to innovation

A consistent and repeatable innovation process helps ensure that all ideas are managed, evaluated, and developed in the same way. This means that individuals and teams can learn their roles, and exercise them with greater comfort and insight.

Approaches to innovation are contextual: one size does not fit all organizations. This section describes several well-known approaches to innovation, loosely sequenced from least to most structured.

7.2.6.1 'Managed chaos' and distributed experimentation

Managed chaos, sometimes called 'bounded instability', is a theory of organizing that suggests organizations are most successful when they adapt to volatile environments, empower employees and leaders throughout the organization, and rely on self-organizing teams. Managed chaos, advocated by business writer Tom Peters (1988), suggests that there is limited value in strictly organizing or structuring day-to-day activities. Instead, managed chaos advocates viewing the organization as an ecosystem of interdependent systems or networks. Instead of focusing on the root causes of organizational problems, managed chaos suggests looking for big-picture patterns that foster or inhibit certain behaviours.

Individual employees and teams are given the freedom to identify, investigate, and solve the organization's problems and devise innovative solutions with little oversight or planning. Managed chaos encourages self-organizing teams and a high level of individual autonomy.

7.2.6.2 Crowdsourced learning

Crowdsourcing innovation often attracts a much larger number of inventors and problem-solvers than a company could keep full-time on staff.

Organizations typically crowdsource innovation by launching contests that are available to large communities (e.g. engineering associations or software developers) or customers. A challenge is posed, usually formulated as a question or problem to solve; basic parameters are set; and a timeline for entries is communicated. Prizes (often monetary) are given to the innovators whose solutions are chosen by the sponsoring organization.

7.2.6.3 Purposeful innovation

Purposeful innovation is the systematic practice of innovation that results from focus, direction, and intentional opportunity mining. It does not rely on heuristics, hunches, or hidden opportunities, or directionless experimentation. Instead, purposeful innovation suggests that innovation should be managed like any other corporate function.

7.2.6.4 Continual learning

Continual learning, sometimes called 'constant learning', is the process of learning new skills and knowledge and reflecting on individual and group experiences on an ongoing basis. As innovation dismantles old ways of working, continual learning ensures that employees have up-to-date skills, and that teams are aware of consumer demand, competitive forces, and the overall state of the market. Continual learning applies at the organizational, team, and individual levels.

8 Defining and advocating DITS

8.1 Digital readiness assessment

Many organizations have plunged into digital transformation initiatives without knowing whether they had the appropriate capabilities and practices. Unfortunately, few organizations know where to begin or what it takes to prepare for digital transformation; as a result, few initiatives are successful. According to Gartner (2019), only a quarter of midsize and large organizations will successfully target new ways of working in 80% of their initiatives. An effective digital readiness assessment can help with these preparations.

Although an organization may try to be more concerned with digital solutions than with assessments, a well-conceived assessment can help demonstrate where it is deficient. It will, therefore, identify where the organization should concentrate its resources and prioritization efforts to produce the best results.

The analysis of all aspects of the organization's environment (internal and external) and how it is likely to change, together with an assessment of the organization's current position, capabilities, and resources, will provide a baseline for how the organization can achieve its vision (see section 2.2).

The following provides an overview of the key activities of a digital readiness assessment, as well as quantifying and communicating a business case for organizational change.

8.1.1 Evaluating current organizational capabilities

Digital readiness assessments can be done within an organization or by experienced external providers, and often examine how organizations

are performing in six key areas. Organizations that are strong in these key areas will have the following characteristics:

- Strategy and digital positioning The organization has a clearly defined digital transformation vision, which is shared at all levels of the organization. There is also a high-level understanding of digital positioning and how to execute the digital position.
- Value streams, practices, and processes The organization has well-established practices and processes that support the overall digital business. Value streams are well understood and mapped across the organization.
- Information and technology The organization uses automation in the right areas and makes good use of digital technology to increase customer excellence, operational excellence, or both.
- Organizational development and learning The organization effectively recruits, hires, develops, and provides growth opportunities to employees with digital skills. This key area drives the 'organization and people' aspect of the four dimensions of service management.
- Risk management The organization has a mature attitude towards business and digital risk, effectively balancing and responding to threats and opportunities.
- Innovation The organization values and supports digital initiatives, and integrates them into the rest of the organization.

Data and information resulting from these key areas can help leadership teams determine where there are gaps that need to be addressed.

8.1.2 Gap analysis

The digital assessment areas can be assessed individually or together. A gap analysis finds the organization's strengths and weaknesses, and can result in actionable, practical steps for it to implement in the short, medium, and long terms.

$8.1.3\,$ Risks and challenges of digital readiness assessment

In their paper 'Developing maturity models for IT management', Becker *et al.* (2009) summarize some of the main issues when conducting a digital readiness assessment. Many assessments are either overcomplicated or too simple. Few assessments account for risk, few account for comprehensive practices, and often the assessment of strategy and leadership is not appropriately addressed.

$8.2\,$ Business case for DITS

8.2.1 Quantifying the value of a digital and IT strategy

A strategy's value is measured by how well it supports the organization's purpose and vision, and how well it enables the organization to achieve its desired outcome. A business case must show how the initiative will help the organization achieve its vision, fulfil its purpose, or sustain its market position.

Furthermore, the business case must outline the initiatives that the organization will not be able to pursue if it has already invested in another initiative. There are always other options available, and the business case must describe what they are.

The vision and purpose of most organizations go beyond financial objectives. The strategy must also show how value, other than the financial, will be created, and how any associated risks will be considered.

8.2.2 Communicating the business case

Communicating the strategy as a business case for approval is very different from communicating it to stakeholders. In the latter case, the strategy is widely communicated, some parts of it externally. Staff, partners, suppliers, and even consumers, should understand how the organization wants to position itself. They should be told about the impact of the strategy, and how to realize positive impacts and avoid negative ones.

The business case for approval of the strategy, including those components of the strategy that contain cost and return calculations, is only shared with those stakeholders who will approve and fund the strategy.

8.2.2.1 Intended audience

Business cases are inputs for making decisions. They are intended to convince key decision-makers of the merits of a course of action. They should be presented only to stakeholders involved in making the decision, and should not be used to raise general awareness or to educate stakeholders impacted by the strategy. This is achieved through a separate set of awareness and education activities.

The audience of a business case should include:

- stakeholders who are expected to fund the initiative defined in the business case
- advisers to those stakeholders, such as enterprise architects, finance experts, legal experts, and technology experts.

8.2.2.2 Obtaining and processing feedback

To challenge the business case for a strategy is to challenge some aspect of the strategy itself. Stakeholders who were not involved in defining the strategy might see a business case as an opportunity to influence it in some way. The only remedy for this situation is to ensure that all stakeholders are appropriately represented in defining the strategy in the first place. The business case for the strategy should not come as a surprise for any leader who is required to provide approval or funding.

Feedback is provided to the leadership team defining the strategy, so that necessary adjustments can be made and checked against all dependencies, and the business case updated for approval.

8.2.2.3 Dealing with resistance

Key to dealing with any resistance is for the digital and IT strategy to be developed in conjunction with the teams defining the business strategy. The digital and IT strategy must show how it will make the business strategy more achievable, and how it will make its initiatives more cost-effective. At all stages of development, the digital and IT strategy team must establish a basis of collaboration with the leaders and teams responsible for the other strategies.

However, there are situations where an organization resists digitization even when its survival depends on the success of the digital and IT strategy. There are many instances where leaders face a hostile group of executives and an organizational culture that resists their initiatives at almost every turn. Therefore unless there is a strong mandate from senior executives and the governing body, frequently communicated, the strategy will not be effective. This message of support must be reinforced by any technique available to change the attitude of stakeholders at every level.

9 Implementing DITS

The implementation of a strategy is as complex as the strategy itself. Strategy requires a constant evaluation and revision of the organization's current position and operation, making it impossible to implement in a single, tidy project. An organization that defines its strategy, creates plans, and then tries to fully implement those plans before reviewing and updating the strategy will struggle to stay relevant in a VUCA environment.

In navigation terms, the purpose and vision are the desired destination. Assessments and positioning are the constellations and instruments that show the organization where it is in relation to its objective. The plans and projects show how it needs to constantly adjust to currents, winds, other craft, and controlling entities to reach that objective.

This chapter will cover several implementation approaches, operating models, characteristics of skilled digital leaders, parallel operating models, ways to assess digital and IT success, and typical activities in digital transformation programmes.

$9.1\,$ How strategies are implemented

Without a clear approach for how strategy will be executed, any initiative will start, stop, and potentially fail, never ultimately turning into long-term, sustainable action. There are significantly fewer books and resources written about how to execute the strategy and turn the vision into reality; execution is difficult to get right. This section provides ideas on how to execute against the strategy after it has been created.

The strategic plans themselves are implemented by teams. It is the role of team managers and individual teams to determine how to implement

these plans and to measure progress against them. It is the role of leaders to ensure that team managers and teams have the funding and resources they need.

Organizations that are successful in achieving their strategies will:

- clearly and consistently communicate their vision
- push decision-making to the team level
- focus on fewer initiatives at a time
- remove barriers that impede progress.

Strategies that require large-scale transformations can be launched at once or incrementally, as described in the following sections. With either type of transition, teams might need to be restructured to better align with value streams, specific products, or services delivered to consumers. Any organizational restructuring should be carefully considered to ensure that changes improve the flow of work, communication, and collaboration within and between teams, and allow them to work more effectively in delivering outcomes.

Figure 9.1 provides an overview of the Satir change model, used to describe the stages that any individual, team, or organization goes through when implementing a significant change. When an organization starts to face setbacks, many will unfortunately stop and return to the status quo. This course of action will ultimately make it harder for the organization to institute change in the future. However, the most successful digital organizations prepare for the resistance, chaos, and setbacks; build the capabilities that are needed to achieve their long-term digital goals; and eventually move past these challenges to improved performance and results.



Figure 9.1 Satir change model

When the Satir change model (Satir *et al.*, 1991) is used in combination with Kotter's eight-step process (Kotter, 2014), it can provide a toolset for leaders in working with their teams at all levels and leading the transformational change. Kotter's eight steps are:

- create a sense of urgency
- build a guiding coalition
- form a strategic vision and initiatives
- enlist a volunteer army
- enable action by removing barriers
- generate short-term wins
- sustain acceleration
- institute change.

Change happens at the organizational level, and also at the employee level; sustained change arises from people and teams changing how they work.

9.1.1 Large-scale transformation

Enterprise-wide implementations have the benefit of moving the organization to a future state all at once, and allow organizations to react more quickly to an urgent, external threat or opportunity. However, this type of transformation can be extremely difficult to implement, and it takes a tremendous amount of commitment, alignment, focus, and coordination between teams at all levels of the organization.

It is imperative that the members of the leadership team are fully aligned with one another and understand the risks associated with this type of approach. Leaders need to coordinate often to ensure that their teams are implementing changes effectively, and that feedback and data are gathered throughout the transformation and used to guide future improvements. Leaders must be prepared to remove roadblocks quickly and be ready to support their teams and institute wide-reaching changes, including how the organization is governed and structured. One of the biggest challenges that leaders must help the organization overcome is changing bureaucratic processes, procedures, governance, etc. to allow faster and more effective ways of working, to deliver successful outcomes to consumers.

9.1.2 Incremental transformation

Another approach to transformation is to start with a pilot team, division, department, or value stream that is working well or provides the most value, or is causing significant issues and must be urgently changed. Then, the changes should be incorporated and the pilot structure subsequently replicated to other groups throughout the organization. This approach allows the organization to break a large

transformation down into smaller steps, to learn from and ease into the change. Furthermore, team members from the pilot groups can help coach and train new teams.

With every transformed team, it is important for leaders to gather feedback and data on team performance and outcomes to guide future steps. Although it is changing only a few areas or teams at a time, the long-term vision of eventually changing all or most of the organization should remain the focus. This approach can take from several months to several years. Leaders will need to be patient with the rate of change that can be absorbed within the organization.

9.1.3 Mergers and acquisitions

Organizations have the ability to take on a new technology, market space, or digital capability through mergers and acquisitions. There is inherent risk in this approach, however, if focus is not placed on aligning the new organization's strategy, vision, practices, and culture. The people side of integrating an acquired or merged company should not be underestimated.

9.1.4 Individual changes

Most discussions about strategy cover how enterprise strategy is converted into several sub-strategies and initiatives. However, a grassroots strategy starts as an individual change in one part of the organization and then spreads. For example, introducing self-help tools and knowledge management as a way of providing first-line support to IT users quickly evolved into self-help approaches for external customers, supported by chatbots and crowdsourced solutions.

Although grassroots initiatives can help identify innovative ideas and use cases, they should also be subject to good governance. Leaders must strive to find the right balance between encouraging innovative approaches and maintaining the organization's overall strategic direction.

9.2 Defining operating models

ITIL®4: Direct, Plan and Improve defines an operating model as a 'conceptual and/or visual representation of how an organization co-creates value with its customers and other stakeholders, as well as how the organization runs itself.'

An operating model represents a series of practices and choices; the interaction between them determines if and how the business delivers its defined value proposition and holds its market position. An operating model ensures that all of these choices and practices (such as which staff need to be hired, what technology needs to be deployed, and which partners need to be used) work together in a unified way.

An operating model canvas is used to plan and improve operating models. It is illustrated in Figure 9.2 (Campbell *et al.*, 2017).



Figure 9.2 Operating model canvas Reproduced with permission from Campbell *et al.* (2017)

In ITIL, the concept of the operating model is represented by the service value chain, which is a detailed operating model, suitable for digital organizations.

9.3 Digital leadership

Every chapter of this study guide outlines some aspect of leadership in digital organizations. The entire guide is for leaders who are responsible for defining and implementing DITS and for ensuring their organizations' ongoing relevance. However, good leaders do not just perform the steps outlined here and in the related practice guides. Defining and implementing DITS requires a fundamental shift in mindset, culture, and capabilities throughout the organization. This shift must start with the leaders. The following sections detail characteristics of skilled digital leaders.

9.3.1 Digital mindset

A digital mindset is a set of attitudes and behaviours that cause someone to continually consider the possibilities that digital technology offers their organization and its stakeholders and look for ways to make those possibilities real. This does not mean making changes for the sake of keeping up with technology trends. Rather, it means understanding how technology is changing the way people live and work, and collaborating with others to ensure that the organization stays relevant in the context of those changes.

9.3.2 Communication

Exceptional communication skills are a fundamental requirement for digital leadership. These skills include the ability to:

- communicate at every level of the organization
- plan a communication strategy

- obtain feedback to ensure that the communication has been effective
- frequently update stakeholders about the status of initiatives in the programme
- showcase outcomes rather than performance.

9.3.3 Relationship management

Without proper collaboration and coordination, the scale and number of changes introduced by digitization will increase miscommunication and disorganization. Digital leaders rely on alignment, communication, and collaboration between stakeholders in different areas of the organization. Relationship management is more than a skill set: it should be a formal practice in which digital leaders play a central role. Relationship management is 'high-touch', not 'high-tech'.

9.3.4 Education and learning

Education is an ongoing activity that is central to the success of digital organizations. It includes:

- Self-education Formal courses, internet searches, analyst reports, industry journals, technology reports, management forums, and learning from other leaders and teams all contribute to self-education.
- Educating peers Every major leadership meeting should involve a brief update on how changes in the digital world are impacting the organization, and how these changes impact its strategy.
- Educating managers and staff Education and training are required so that staff are aware of what the strategy means to them, and specifically how they are required to implement it. It must incorporate several channels to reinforce it (e.g. frequent messages from the CEO, highly visible and repeated updates, focus groups, on-site support).

- Educating consumers This activity must be part of the organization's overall marketing approach and programme. Consumers should never be surprised by changes (unless the surprise is pleasant and anticipated), and changes should be as intuitive as possible.
- Educating shareholders Shareholder education needs to focus on how the changes in strategy will impact the value of the organization.
- Educating suppliers Digital initiatives often include suppliers as part of their products. The more the supplier knows about the product and the outcomes it is being used to achieve, the better it will be able to perform.

9.3.5 Evaluating emerging technology and industry trends

Digital leaders must be able to evaluate technologies and industry trends in terms of the opportunities or threats they represent for the organization. This requires an in-depth understanding of the organization's:

- current architecture, including which components might be impacted
- business model
- products and services, and their associated value propositions
- operating model and value streams.

Not every emerging technology will align with an organization's goals and vision, so digital leaders need to understand how to identify the technologies and trends that will significantly benefit their organization.

9.3.6 Agile management techniques

Digital organizations must be able to manage the high volume of innovation that their customers demand. To do this, they may use Agile approaches to reduce time to market and respond to the level of change in their industry. This approach involves merging build-and-run cycles, reducing design and production times, and automating or outsourcing as much repetitive work as possible. Cross-functional teams aligned with value streams are common. These new ways of working require a very different style of leadership.

These concepts are discussed in detail in *ITIL*[®]4: *High-velocity IT* and *ITIL*[®]4: *Create, Deliver and Support*.

9.3.7 Defining and using strategic metrics

Strategic metrics focus on outcomes and strategic objectives. Managers who are used to reporting performance (revenue, expenditure, number of items produced, number of incidents solved) and quality (number of exceptions, uptime, on-time delivery) must change their focus. Although these metrics can and should be an input for some strategic metrics, they are not enough by themselves.

9.3.8 Orchestrating diverse environments

Digital organizations are not only diverse in the culture and background of the staff they employ, but also in the technologies they use and the array of disciplines and knowledge they need to access. Digital leaders need to develop leadership styles that facilitate collaboration between these diverse capabilities in support of the organization's objectives. These approaches are covered in detail in *ITIL®4: Create, Deliver and Support*.

9.3.9 Operationalizing strategy

Leaders who play a strategic role will find themselves in a unique and often uncomfortable position. They are visionaries, ahead of the rest of the organization. They are also pragmatists, whose job it is to discover how to realize the benefits of each possibility they and their teams have discovered. Vision is only valuable if it can help the organization to meet its objectives. Digital leaders must combine imagination and application.

Digital leaders also need to be comfortable with the uncertainty that comes with being between the possible and the actual. They must develop a reward system based on being able to live and thrive in this in-between space.

9.3.10 Business and technology management skills

So far, a range of unique capabilities and features of digital leaders has been listed. In addition to all these traits, digital leaders must have the skill and knowledge that qualifies them to be business leaders in their organizations.

Digital leaders must understand the business of their organization. They must understand the technology upon which they are placing its future. Crucially, they must understand the disciplines and skills of managing both. The languages of finance, marketing, business operations, and information security, together with modern ways of working (such as ITIL 4, Lean, Agile, and DevOps) and technology management, are all essential for a successful digital leader, as they are for any business leader.

Effective digital leaders are not necessarily born with the skills needed to lead a successful digital organization. Rather, they learn, develop, and practise 'conscious leadership' skills. For more details on conscious leadership, see the workforce and talent management practice guide.

9.4 Parallel operating models

Parallel operating models (POMs) are approaches to executing digital strategy while maintaining a steady state. They directly address the sustainment of two business models at the same time. Although POMs rarely exist in a pure state, they can be reduced to four basic models for the sake of comprehension:

- cannibalism
- erosion
- concurrence
- synergism.

9.4.1 Cannibalism

Cannibalism focuses on the rapid destruction of an existing business model and its subsequent replacement with a new digital business model. Most forms of cannibalism aim to reduce the degree of parallel operation as much as possible. In these cases, assets or capabilities that can still be used are subsumed into the transformed environment, but often not in their current form.

Cannibalism is the most aggressive POM, often an extreme reaction to threats. It is frequently driven by overcrowded markets with many competitors and a dwindling consumer base. In practice, an organization suddenly realizes that its business model (and often its products and services) is unsustainable, or is under serious threat from competitors or radically new applications of technology.

9.4.2 Erosion

Erosion can be considered a kinder, gentler form of cannibalism where the organization uses the revenues of an existing and still profitable business model to fund a new digital business model. For a time, both business models operate simultaneously. The intent is to benefit from the still-lucrative resources of the existing business model for as long as possible. Profits and the other resources of the existing business model are used to fund the emerging model.

9.4.3 Concurrence

Concurrence is an approach where the new digital business model neither helps nor harms the existing business model. Concurrence tends to work best when the organization is attempting to gain or increase market share.

9.4.4 Synergism

The basic idea behind synergism is that two models combined produce a greater or different result than they could have produced individually: 1 + 1 > 2.

Synergism tends to work best in situations where adjacent or complementary sales channels exist, there is no competition among channels, and customers prefer omnichannel delivery. In other words, some customers want to shop in a physical store sometimes and online at other times. Although it is not appropriate for every organization, synergism is in many ways the most mature or advanced of the POMs. It may provide the greatest benefits, but it is also the most difficult to execute.

9.4.5 Ineffective operating models

The worst POM is none at all. Organizations that have no model are either extraordinarily lucky or no longer in business. Some organizations operate parallel processes, technologies, or products simply by reacting to changes in the environment. Others adopt a model that is inappropriate for their objectives. These models are either too poorly defined, too expensive, or too rigid to be practical.

$9.4.6\,$ Pace of transition from the old model to a digital model

The best POM varies according to the organization, as does the best pace of transition. The appropriate pace will tend towards either a rapid (often painful) transition period, or a cautious approach due to the uncertainties inherent in completely abandoning the old model and replacing it with a new one.

At least four factors need to be considered in determining the appropriate pace of transition:

- consumer demand
- organizational capabilities and culture
- maturity of supporting digital technologies
- threats from competitors and emerging technologies.

9.5 Assessing DITS success

Strategy management is a continual practice. It involves reviewing and updating the direction of the strategy, based on reassessing the environment and evaluating the progress and achievements of the strategic initiatives. This approach requires ongoing strategic measurement and reporting, which applies more generic measurement and reporting practice to the strategy. Measuring a strategy provides insights for its continual improvement or significant review, and may trigger a wider reconsideration, such as a business model review.

Measuring the success of a strategy involves three types of measurement, namely whether:

- the individual strategic initiatives are on track and achieving the intended results
- the strategy as a whole is on track and achieving the intended results

• the strategy and its initiatives are still appropriate given changes to the organization's internal and external environments.

Measurements provide information that can be used to make decisions and pinpoint issues, which can be tackled by management to ensure a reliable foundation for motivation. To support these management tasks and measurement categories, various types of metrics are used. The most common and relevant for measuring a strategy are described below.

9.5.1 Types of metrics

The main types of metrics are as follows:

- Effectiveness metrics These indicate the degree to which an activity (or group of interrelated activities) fulfils its purpose and achieves its objectives.
- Efficiency metrics These illustrate how an organization utilizes resources to perform activities and manage products and services.
- Productivity metrics These show the amount of work that is performed and the resulting outputs. They can also be described as the 'throughput' of a resource or a system.
- **Conformance metrics** These demonstrate how a managed object meets pre-agreed rules and requirements; they are of interest mostly to the owners of the managed object (e.g. practice owners, product owners) and governing bodies.



Definition: Metric

A measurement or calculation that is monitored or reported for management and improvement.

$9.5.2 \ \text{Lagging and leading metrics}$

Lagging metrics report what has already been achieved. Lagging indicators are impossible to influence and relatively easy to measure.

Leading metrics help to predict what is likely to happen in the future. Leading indicators are often difficult to measure, but fairly easy to influence (see Figure 9.3 for a summary of lagging and leading indicators).



Figure 9.3 Lagging and leading indicators

Organizations that focus only on lagging indicators, such as those used in service level agreement (SLA) reports, might be able to report on trends based on past events, but are otherwise limited in their ability to shape future results. An example of a lagging indicator is revenue from a digital initiative for a prior month, whereas a leading indicator would be the number of experiments in support of a digital initiative that a team runs each week. Teams and leaders need to invest in the up-front time needed to define, set targets for, monitor, and review both leading and lagging indicators to support informed decision-making.

9.5.3 Outside-in and inside-out metrics

Another aspect of metric categories is outside-in vs inside-out metrics. Outside-in metrics represent the customer view of an organization's services, whereas inside-out metrics represent the internal (IT) organizational view of services. Every customer-facing report should be based on outside-in metrics that focus on the value and outcomes that achieve the results and experiences the customers desire. Digital transformation efforts must maintain an outside-in focus as part of a balanced approach to measuring progress and, ultimately, the success of the effort.

$9.5.4 \ \text{Metrics and indicators}$



Metrics are useful when they support decision-making by indicating important aspects of a managed object; in other words, when they serve as indicators. The most important indicators are known as 'key performance indicators' (KPIs).

To use metrics as KPIs, it is important to:

- identify the key metrics
- define target values and trends
- define tolerances.

9.5.5 Objectives and key results

Definition: Objectives and key results

A framework for defining and tracking objectives and their outcomes.

Some organizations have adopted a specialized approach to defining strategic objectives and critical success factors (CSFs) known as 'objectives and key results' (OKR).

Various frameworks have been developed over the years, and all have seen both success and failure. The key is not in what the metric is, but in how it is used. If metrics do not enable appropriate decision-making and action, they will be meaningless.

OKR as a method is focused on defining strategic objectives and their outcomes, and tracking both to see that they are achieved. OKRs measure those things the organization does, along with the effects they have on their environment.

$9.6\,$ Typical activities of a digital transformation programme

The activities of a digital transformation programme will be determined by its scope and objectives. A single initiative to modernize a technology component will be very different from an initiative aimed at bringing a new digital product to market. Both will be different from a programme

aimed at transforming several lines of business to benefit from a new digital supply chain.

There are innumerable diverse examples of projects, initiatives, and programmes available online, each as unique as the organization that created it and the scope of the programme it was designed for. However, narrowing digital transformation down to just one implementation framework is not only impossible, but it will almost certainly result in failure.

Instead, this section will use two scenarios typically labelled as digital transformation programmes, and outline the major activities that are likely to be included in each. Note that the sequence of these activities might change depending on the purpose and scope of the initiative. Rather than replicating what another organization has done, you should forge a path that works for yours.

Detailed information on project management activities and approaches can be found in the ITIL project management practice guide.

$9.6.1\,$ Scenario 1: Building capabilities to become a digital organization

This scenario is often referred to as a 'digital strategy'. It is a programme of initiatives, used to build the capabilities that an organization requires to become digital. These initiatives could involve automating existing business elements, or changing business and operating models to compete digitally. The organization will appoint a digital task force (consisting of senior leaders and experts in technology, customer experience, and the organization's business) to define and implement the digital transformation programme.

The major activities of this type of digital transformation approach are illustrated in Figure 9.4. Throughout the programme, the task force will use an approach such as Kotter's eight steps (see section 9.1 and the

organizational change management practice guide) to lead the changes. These steps do not need to be strictly adhered to or performed sequentially, but rather are included as an example. The steps are often performed iteratively and incrementally, according to the organization's needs and strategy.



Figure 9.4 Typical steps in a digital transformation programme

$9.6.2 \hspace{0.1 cm} \text{Scenario 2: Conducting a single digital transformation} \\ \text{initiative} \end{array}$

In this type of digital transformation, one or more stakeholders finds an opportunity to use digital technology to do something better, faster, or cheaper. The transformation tends to be limited to a single organizational unit, product, value stream, or practice. Although the stakeholder might view the transformation as strategic, it is generally operational or tactical in nature. Examples include a new feature in a product, a quicker method to process orders, or a technology that stores data with a lower cost and faster access.

These are not digital transformation programmes as such, but if there are enough of them across a large-enough part of the organization, they will present a significant source of transformation to the organization.

10 ITIL practices in DITS

Below is additional detail on the seven examinable ITIL 4 practices in DITS.

10.1 Architecture management

10.1.1 Purpose

To explain the different elements that form an organization. This practice explains how the elements interrelate to enable the organization to effectively achieve its current and future objectives. It provides the principles, standards, and tools that enable an organization to manage complex change in a structured and Agile way.

10.1.2 Practice success factors

The architecture management practice includes the following practice success factors:

- ensuring that the organization's strategy is supported with a target architecture
- ensuring that the organization's architecture is continually evolving to the target state.

10.2 Measurement and reporting

10.2.1 Purpose

To support good decision-making and continual improvement by decreasing the levels of uncertainty. This is achieved through the collection of relevant data on various managed objects and the valid
assessment of this data in an appropriate context. Managed objects include, but are not limited to, products and services, practices and value chain activities, teams and individuals, suppliers and partners, and the organization as a whole.

10.2.2 Practice success factors

The measurement and reporting practice includes the following practice success factors:

- ensuring that measurements are driven by objectives
- ensuring the quality and availability of measurement data
- ensuring effective reporting to support decision-making.

10.3 Portfolio management

10.3.1 Purpose

To ensure that the organization has the right mix of programmes, projects, products, and services to execute the organization's strategy within its funding and resource constraints.

10.3.2 Practice success factors

The portfolio management practice includes the following practice success factors:

- ensuring sound investment decisions for programmes, projects, products, and services within the organization's resource constraints
- ensuring the continual monitoring, review, and optimization of the organization's portfolios.

10.4 Risk management

10.4.1 Purpose

To ensure that the organization understands and effectively handles risks. Managing risk is essential to ensuring the ongoing sustainability of an organization and co-creating value for its customers. Risk management is an integral part of all organizational activities and therefore central to the organization's service value system (SVS).

10.4.2 Practice success factors

The risk management practice includes the following practice success factors:

- establishing governance of risk management
- nurturing a risk management culture and identifying risks
- analysing and evaluating risks
- treating, monitoring, and reviewing risks.

10.5 Service financial management

10.5.1 Purpose

To support the organization's strategies and plans for service management by ensuring that the organization's financial resources and investments are being used effectively.

10.5.2 Practice success factors

The service financial management practice includes the following practice success factors:

- ensuring that the organization's service financial management supports its overall strategy and stakeholder requirements
- ensuring that reliable financial information is available as needed to support decision-making.

10.6 Strategy management

10.6.1 Purpose

To formulate the goals of the organization and adopt the courses of action and allocation of resources necessary for achieving those goals. Strategy management establishes the organization's direction, focuses effort, defines or clarifies the organization's priorities, and provides consistency or guidance in response to the environment.

10.6.2 Practice success factors

The strategy management practice includes the following practice success factors:

- ensuring that the organization's strategies are effective and sustainable, and meet the stakeholders' evolving needs
- ensuring that the agreed strategies and models are communicated across the organization and embedded into the organization's practices and value streams.

10.7 Workforce and talent management

10.7.1 Purpose

To ensure that the organization has the right people, with the appropriate skills and knowledge, in the correct roles, to support its business objectives. This practice covers a broad set of activities

focused on successfully engaging with the organization's employees and people resources, including planning, recruitment, onboarding, learning and development, performance measurement, and succession planning.

10.7.2 Practice success factors

The workforce and talent management practice includes the following practice success factors:

- ensuring the continual alignment of the workforce and talent management approach to the organization's business strategy
- ensuring that motivated and competent people effectively contribute to the achievement of the organization's objectives
- ensuring that the administrative processes for this practice effectively support the organization's strategy and objectives.

11Taking the DITS examination11.1Purpose of the ITIL 4 DITS qualification

This module focuses on the importance and challenges of creating an appropriate digital strategy to enable the success of the business and how it can (and should) be integrated into the IT strategy and aligned with the wider organization's goals. It explores the use of the ITIL framework to support an organization in its digital transformation journey by providing a structured and flexible approach for addressing service management challenges and utilizing the potential of modern techniques and practices to get the most value from digital technology.

The ITIL 4 DITS qualification is one of the prerequisites for the designation of ITIL 4 Strategic Leader which assesses the candidate's practical and technical knowledge about how to create an appropriate digital strategy to enable a business to succeed within a digital transformation environment, and how the digital strategy can be integrated into the IT and business strategy within an organization.

11.2 Examination structure

The DITS certification is based on two elements. A candidate must pass both the practical assignments and the multiple-choice question (MCQ) examination to achieve the certification. Successful fulfilment of the practical assignments is a prerequisite for the MCQ examination.

11.3 Case study assessment

11.3.1 Overview

The case study has been created for the four practical assignments of the ITIL Leader – Digital and IT Strategy course. It describes three fictional companies; any resemblance to real companies is unintentional. Participants of the course are expected to work on the practical assignments in small groups or individually if they are undertaking a self-paced online course.

Practical assignments are assessed by the trainer(s) of the course according to the following criteria:

- Materials allowed This is an 'open book' assessment. Any available materials are allowed to be used during the assignments, including *ITIL*[®]4: Digital and IT Strategy and the ITIL practice guides.
- Examination duration In the group work format, there are three practical assignments, each of approximately 60 minutes' duration, and one assignment of 90 minutes. The group delivers an oral presentation with supporting written documentation. The group as a whole is assessed. In the individual format, there are four individual written assignments, each of approximately 60 minutes' duration, and students are assessed individually.

• Scoring:

- Number of marks available: 40
- Number of assessment criteria: 5
- Each assessment criterion is worth 8 marks
- There is no negative marking.

Provisional pass mark: 75% or higher – a raw score of 30 marks or above.

- Level of thinking For Bloom's Level 4 questions, candidates need to analyse the information provided and make a judgement on whether a course of action is effective and appropriate.
- Question types All four assignments are based on a case study which describes three companies engaged in a service relationship. All assignments address two of the assessment criteria (ACs).
- Assessment criteria As shown in Table 11.1.

Table 11.1 Case study assessment criteria

Assessment criteria	Assignment number
AC 1.1 Relate the ITIL guiding principles to all aspects of \ensuremath{DITS}	All
AC 4.5 Use a digital positioning tool to determine the appropriate position for a digital organization	1
AC 5.4 Assess strategic approaches for digital organizations	2
AC 4.2 Apply DITS in managing VUCA environments	3
AC 8.3 Apply the approaches to strategy coordination and implementation	4

11.3.2 Case study assessment syllabus

The elements of the syllabus relevant to the case study are shown in Table 11.2. The full syllabus is shown in Chapter 13.

Table 11.2 Case study syllabus

Lea	nrning outcome	Asse	ssment criteria	ITIL [®] 4: DITS refs	DITS Study Guide refs	Bloom's level
1	Demonstrate the use of the ITIL guiding principles	1.1	Relate the ITIL guiding principles to all aspects of DITS:	2.10.4	2.1	BL4
	in digital and IT		a) Focus on value			
	decisions and		b) Start where you are			
	activities		 c) Progress iteratively with feedback 			
			d) Collaborate and promote visibility			
			e) Think and work holistically			
			f) Keep it simple and practical			
			g) Optimize and automate			
4	Understand how an organization uses DITS to remain viable in environments disrupted by	4.2	Know how to analyse the VUCA factors and address them in a digital and IT strategy	8.1 (including subsections)	2.4.1	BL4
	digital technology	4.5	Use a digital positioning tool to determine the appropriate position for a digital organization	3.3 (including subsections)	2.4.3	BL4

Table continues

Taking the DITS examination

Lea	arning outcome	Asses	sment criteria	ITIL [®] 4: DITS refs	DITS Study Guide refs	Bloom's level
5	Understand strategic approaches made possible by digital and information technology to achieve customer/market relevance and operational excellence	5.4	Assess strategic approaches for digital organizations	5.2 (including subsections)	6	BL4
8	Understand how to implement a digital and IT strategy	8.3	Apply the following approaches to strategy coordination and implementation: a) Large-scale transformation b) Incremental transformation c) Mergers and acquisitions	a) 6.1, 6.2.1, 6.1.1 b) 6.1, 6.2.1, 6.1.2 c) 6.1, 6.2.1, 6.1.3 d) 6.1, 6.2.1, 6.1.4	a) 9.1, 9.1.1 b) 9.1, 9.1.2 c) 9.1, 9.1.3 d) 9.1, 9.1.4	BL4
			d) Individual changes			

11.3.3 Taking the case study assessment

Students will be expected to understand and apply principles from the assignment criteria as outlined in Table 11.2; for example, applying the ITIL guiding principles, working within a VUCA environment, and developing strategic approaches for a digital organization outlined as one of the case studies presented during class.

11.3.4 Tips for completing the assessment

Here are some tips for the successful completion of the practical assessments:

- Candidates will work with their teams and focus on one company from the case study throughout the classroom session, applying what they've learned in class.
- The practical assessments are 'open book' assignments. Candidates can use any materials to hand.
- Candidates will have 30–40 minutes for discussion and 5–10 minutes to present their team's results.
- Candidates should use the templates provided as part of the classroom session, and a new member of the team will present each assignment.

11.4 Multiple-choice question examination

11.4.1 Examination overview

- Material allowed No additional materials are allowed in the examination. This is a 'closed book' examination.
- Examination duration The examination is scheduled for 60 minutes. Candidates taking the examination in a language that is not their native tongue or working language may be awarded 25% extra time, i.e. 75 minutes in total. The training or examination provider should be made aware of this when the course is booked.
- Prerequisites The candidate must have at least two years' managerial experience and have passed the ITIL 4 Foundation examination. In addition, the candidate must have attended an accredited training course for this module (the recommended duration for this training is 18 hours, including the examination).

- Scoring Number of questions: 30, each worth 1 mark (30 marks in total). There is no negative marking.
- Provisional pass mark 70% or higher a score of 21 marks or above.
- Level of thinking The examination conforms to a learning objective tool called Bloom's Taxonomy. The term 'Bloom's levels' indicates the type of thinking needed to answer the question. The examination is constructed at Bloom's Level 2 (12 questions) and Bloom's Level 3 (18 questions). Weightings by learning outcome are provided in Table 11.3.

Table 11.3 Examination weighting by learning outcome

Learning outcome	No. of questions	Approx. weightings (%)
Demonstrate the use of the ITIL guiding principles in digital and IT strategy decisions and activities	0	0
Understand how to leverage digital strategy to react to digital disruption	6	20
Understand the relationship between the concepts of DITS, the service value system, and the service value chain, and explain how to utilize them to create value	1	3
Understand how an organization uses DITS to remain viable in environments disrupted by digital technology	4	13
Understand strategic approaches made possible by digital and information technology to achieve customer/market relevance and operational excellence	6	20
Understand the risks and opportunities of DITS	5	17
Understand the steps and techniques involved in defining and advocating for a digital and IT strategy	3	10
Understand how to implement a digital and IT strategy	5	17

11.4.2 Question type examples

There are three main question types: standard, negative, and list.

11.4.2.1 Standard

A standard question has four answer options. Standard questions typically account for 70-75% of the examination. It is vital to read these questions carefully and understand what they are asking.

The following example is a Bloom's Level 2 standard question where an element of judgement is needed.

Example

An organization is investigating locations for a new office.

What type of external factors should be analysed to ensure that potential future employees can integrate easily into the overall organization?

- A Political
- B Economic
- C Social
- D Legal

The answer is C, as the social PESTLE factor includes a population's culture, attitudes, norms, values, demographics (such as age, income, location, and language), buying trends, mobility, etc. Analysis of the social factors will help to identify whether the local culture and values are a good organizational fit.

The next example is a Bloom's Level 3 question where the candidate needs to demonstrate application of the concepts, methods, and principles of DITS, as well as information from the related practices.

Example

An organization wants to grow its business. It completed an assessment and implemented an improvement programme which has helped it to deliver services very efficiently, while managing risks and containing costs.

What else does it need to consider to have a balanced approach to its strategy?

- A How to monitor and manage its operations
- B How to improve its operations
- C How to address new markets or customers
- D How to work differently to increase efficiency

The answer is C.

This organization already has a strong inward focus, and it needs to balance this with an external focus. 'Some organizations ... look outwards and ask questions such as: What markets do we serve? ... What opportunities are there for growth or disruption? ... What capabilities do we have that open new avenues for us in existing or new markets?' (see section 5.3.3).

11.4.2.2 Negative

Negative questions are a type of standard question in which the stem is negatively worded. These are traditionally the most difficult to answer, because, under the pressure of an examination, it is easy for the

candidate to convince themselves that all options are true. Note that negative questions are only used as exceptions, where part of the learning outcome is to know that something is not done or should not occur.

Example

Which is NOT an example of a viable approach to leading digital transformation initiatives in an organization?

- A Adjusting the scale and steps of the transformation to its scope and objectives
- B Using concepts from the organizational change management practice
- C Following a detailed universal implementation framework
- D Making incremental improvements within limited scope

The answer is C.

The activities of a digital transformation programme will be determined by its scope and objectives. Thus, reducing digital transformation to just one implementation framework is very unlikely to succeed and will inevitably lead to failure of the programme.

11.4.2.3 List

For a list question, there is a list of four statements, and candidates have to select two correct ones. List-style questions are never negative. Candidates should approach these questions by working out which statements they are certain are correct or incorrect. Knowing just two of the four will always lead to the correct answer.

Example

Which should be included in the risk management practice for a digital organization?

- 1. Developing a target architecture based on risk.
- 2. Ensuring actions are taken to reduce all risks.
- 3. Encouraging a risk management culture.
- 4. Ensuring governance is in place for risk management.
 - A 1 and 2
 - B 2 and 3
 - C 3 and 4
 - D 1 and 4

The answer is C.

The risk management practice includes the following practice success factors: establishing governance of risk management, and nurturing a risk management culture and identifying risks.

11.4.3 Examination modalities

The examination can be taken as a paper-based exercise or in an online digital format. More information on examination regulations and technical requirements is available from the organizations providing training or examinations.

11.4.4 Sample papers

Two official sample examination papers will be provided as part of an accredited course.

These papers are written by the same examining teams as the live papers, and follow the same algorithm regarding the numbers and styles of questions. They also contain examiners' rationales which justify the correct answers.

Some training organizations will provide extra questions written by their own people. Care should be taken with these questions, as they are not always written to the same style and quality guidelines as those in the official sample and live papers. Nevertheless, they can prove helpful to aid a candidate's learning.

11.4.5 Tips for taking the examination

- Read the question and highlight key words It is very easy to miss a word in a question. For example, subconsciously removing 'NOT' from a question changes the focus completely. The human brain has a prediction mechanism that allows us to anticipate words without having to read them. Be careful to read the question fully and highlight key words to avoid mis-reading.
- Be careful with time management, but don't stress about it
 Thirty questions in 60 minutes is 2 minutes per question. Based
 on extensive experience, it is very unusual for time to be an issue. This
 is the case even for candidates whose native language is not English
 (who are given an extra 15 minutes). It is one less thing to worry about.
- Remember 'What would ITIL say?' It is likely that candidates will have spent 3 days in a class or 12–16 hours learning online before attempting the examination. When answering questions, a candidate's first thought will be from short-term memory and faithful to what ITIL would say. Care should be taken not to rationalize questions against a candidate's experience of their own organization. The candidate should bear in mind that their organization will have adapted ITIL heavily, and its ways of working may not match exactly what *ITIL®4: Digital and IT Strategy* says or the answer needs!

12 The ITIL 4 certification scheme

There are four levels within the ITIL 4 certification scheme, as shown in Figure 12.1.

$12.1 \hspace{0.1 cm} \text{ITIL Foundation}$

The ITIL 4 Foundation certification is designed as an introduction to ITIL 4 and enables candidates to look at IT service management through an end-to-end operating model for the creation, delivery, and continual improvement of IT-enabled products and services.

The target audience consists of:

- those who require a basic understanding of the ITIL framework
- those who want to understand how ITIL can be used to enhance IT service management



Figure 12.1 The ITIL certification scheme

 IT professionals or others working within an organization that has adopted ITIL.

$12.2 \hspace{0.1 cm} \text{ITIL Managing Professional stream}$

ITIL Managing Professional (ITIL MP) is a stream of four modules that provides practical and technical knowledge about how to run successful IT-enabled services, teams, and workflows.

All modules have ITIL 4 Foundation as a prerequisite.

The target audience consists of:

- IT practitioners working within technology
- digital teams across businesses.

To obtain the designation ITIL Managing Professional, the candidate must complete all four modules in this stream, with ITIL Strategist – Direct, Plan and Improve being a universal module for both streams.

The four modules are:

- ITIL Specialist Create, Deliver and Support
- ITIL Specialist Drive Stakeholder Value
- ITIL Specialist High-velocity IT
- ITIL Strategist Direct, Plan and Improve.

12.2.1 ITIL Specialist – Create, Deliver and Support

12.2.1.1 Coverage

This module covers:

- core service management activities
- creation of services

- integration of different value streams and activities to create, deliver, and support IT-enabled products and services
- supporting practices, methods, and tools
- service performance
- understanding of service quality and improvement methods.

12.2.1.2 Target audience

Practitioners responsible for:

- managing the operation of IT-enabled and digital products and services
- the end-to-end delivery of services.

12.2.1.3 Training

Accredited training for this module is mandatory.

12.2.2 ITIL Specialist – Drive Stakeholder Value

12.2.2.1 Coverage

This module covers:

- all types of engagement and interaction between a service provider and its customers, users, suppliers, and partners
- conversion of demand into value via IT-enabled services
- key topics such as SLA design, multi-supplier management, communication, relationship management, CX and UX design, and customer journey mapping.

12.2.2.2 Target audience

Practitioners responsible for:

- managing and integrating stakeholders
- customer journey and experience
- fostering relationships with partners and suppliers.

12.2.2.3 Training

Accredited training for this module is mandatory.

12.2.3 ITIL Specialist – High-velocity IT

12.2.3.1 Coverage

This module covers:

- the ways in which digital organizations and digital operating models function in high-velocity environments
- operating in a similar way to successful digitally native organizations
- use of working practices such as Agile and Lean, and technical practices and technologies such as the cloud, automation, and automatic testing, to enable rapid delivery of products and services.

12.2.3.2 Target audience

IT managers and practitioners involved in digital services or digital transformation projects, working within or towards high-velocity environments.

12.2.3.3 Training

Accredited training for this module is mandatory.

12.2.4 ITIL Strategist – Direct, Plan and Improve*

12.2.4.1 Coverage

This module covers:

- creating a 'learning and improving' IT organization, with a strong and effective strategic direction
- influence and impact of Agile and Lean ways of working, and how they can be leveraged to an organization's advantage
- practical and strategic methods for planning and delivering continual improvement.

12.2.4.2 Target audience

Managers at all levels involved in shaping direction and strategy or developing a continually improving team.

12.2.4.3 Training

Accredited training for this module is mandatory.

12.3 ITIL Strategic Leader stream

ITIL Strategic Leader (ITIL SL) is a stream of two modules that recognizes the value of ITIL, not just for IT operations, but for all digitally enabled services. Becoming an ITIL Strategic Leader demonstrates that the individual has a clear understanding of how IT influences and directs business strategy.

^{*} This is a universal module that is a key component of both the ITIL Managing Professional and ITIL Strategic Leader streams.

To obtain the designation ITIL Strategic Leader, the candidate must complete both modules in this stream, with ITIL Strategist – Direct, Plan and Improve being a universal module for both streams. Both modules have ITIL 4 Foundation as a prerequisite.

The two modules are:

- ITIL Strategist Direct, Plan and Improve
- ITIL Leader Digital and IT Strategy.

12.3.1 ITIL Strategist – Direct, Plan and Improve

As detailed in section 12.2.4.

12.3.2 ITIL Leader – Digital and IT Strategy

12.3.2.1 Coverage

This module covers:

- alignment of digital business strategy with IT strategy
- how disruption from new technologies is impacting organizations in every industry, and how business leaders are responding
- building and implementing effective IT and digital strategy that can tackle digital disruption and drive success.

12.3.2.2 Target audience

The target audience consists of IT and business leaders and aspiring leaders.

12.3.2.3 Training

Accredited training for this module is mandatory. In addition, those undertaking the ITIL Strategic Leader modules would benefit from a minimum of two years of IT managerial experience.

12.4 ITIL Master

The ITIL Master certification verifies a candidate's ability to apply the principles, methods, and techniques from ITIL in the workplace.

To achieve this certification, a candidate must be able to explain and justify how they have personally selected and applied a range of knowledge, principles, methods, and techniques from the ITIL framework and supporting management techniques, to achieve desired business outcomes in one or more practical assignments.

To be eligible for the ITIL Master certification, a candidate must have both:

- achieved the ITIL v3 Expert certificate or ITIL Managing Professional and ITIL Strategic Leader designations
- worked in IT service management for at least five years in leadership, managerial, or higher management advisory levels.

There is no formal training. PeopleCert, AXELOS's licensed examination institute (EI), provides documentation to support and guide candidates who wish to prepare for the ITIL Master qualification.

13 ITIL 4: Digital and IT Strategy syllabus

Table 13.1 gives a summary of the concepts that are tested in the examination. It references where these are described, both in the main parts of *ITIL®4: Digital and IT Strategy* and the relevant sections of this guide.

The verb for each assessment criterion indicates the Bloom's level (BL):

- 'Describe' and 'explain' indicate Level 2 understanding/comprehension.
- 'Demonstrate' (concepts, methods, and principles of DITS, as well as information from the related practices) indicates Level 3 application.

Learning outcome		Assessment criteria		ITIL [®] 4: DITS and practice guide refs	DITS Study Guide refs	Bloom's level	Marks
1	Demonstrate the use of the ITIL guiding principles in digital and IT strategy decisions and activities	1.1	Relate the ITIL guiding principles to all aspects of DITS: a) Focus on value b) Start where you are c) Progress iteratively with feedback d) Collaborate and promote visibility e) Think and work holistically f) Keep it simple and practical g) Optimize and automate	2.10.4	2.1	BL4	

Table 13.1 Concepts that are tested in the ITIL 4 Digital and IT Strategy examination

ITIL 4: Digital and IT Strategy syllabus

Le ou	arning tcome	Asse	essment criteria	ITIL [®] 4: DITS and practice guide refs	DITS Study Guide refs	Bloom's level	Marks
2	Understand how to leverage digital strategy to react to digital disruption	2.1	Understand the following concepts: a) Digital technology b) Digital business c) Digital business d) Digitization e) Digital transformation	a) 2.1, 2.1.1, 2.1.2, 2.1.3 b) 2.3 c) 2.2 d) 2.4 e) 2.5	a) 3.1.1 b) 3.1.2 c) 3.1.2 d) 3.1.3 e) 3.1.3	BL2	2
		2.2	Understand the following concepts: a) Business strategy and business models b) Digital and IT strategy c) Products d) Services	a) 2.7.1, 2.8.1 b) 2.7.2, 2.7.3 c) 2.6 d) 2.6	a) 3.1.5.1 b) 3.1.5.2, 3.1.5.3 c) 3.1.4 d) 3.1.4	BL2	2
		2.3	Know how to explain the relationship between DITS and the components of the ITIL SVS	2.10 (excluding 2.10.4) and the strategy management practice guide 2.1 and 2.4 (including all subsections)	3.2	BL3	2
3	Understand the relationship between the concepts of DITS, the SVS, and the service value chain, and explain how to utilize them to create value	3.1	Explain environmental analysis in terms of: a) External analysis: PESTLE b) Internal analysis: the four dimensions of service management	a) 4.1, 4.1.1, 4.1.3, 4.1.4 b) 4.1, 4.1.2, 4.1.3, 4.1.4	a) 4.1.1 b) 4.1.2	BL3	1

Table continues

Table 13.1 continued

Le ou	arning tcome	Asse	essment criteria	ITIL [®] 4: DITS and practice guide refs	DITS Study Guide refs	Bloom's level	Marks
4	Understand how an organization uses DITS to remain viable in	4.1	Demonstrate that an organization's viability is related to how Agile, resilient, Lean, continuous and co-creational it is	8.1.2, 8.1.2.2	5	BL3	1
	environments disrupted by digital technology	4.2	Know how to analyse the VUCA factors and address them in a digital and IT strategy	8.1 (including subsections)	2.4.1	BL4	
		4.3	Explain and compare three levels of digital disruption: a) Ecosystem b) Industry/market c) Organizational	a) 3.1, 3.1.1 b) 3.1, 3.1.2, 3.1.3 c) 3.1, 3.1.4	a) 5.2.2 b) 5.2.3 c) 5.2.4	BL3	1
		4.4	Show how an organization's position in a particular market or industry is influenced by the following factors: a) Achieving customer/ market relevance b) Achieving operational excellence c) Internal and external focus d) Balanced approach	a) 3.2, 3.2.1, 3.2.4 b) 3.2, 3.2.2, 3.2.4 c) 3.2, 3.2.3, 3.2.4 d) 3.2, 3.2.4	a) 5.3.1 b) 5.3.2 c) 5.3.3 d) 5.3.4	BL3	2
		4.5	Use a digital positioning tool to determine the appropriate position for a digital organization	3.3 (including subsections)	2.4.3	BL4	

ITIL 4: Digital and IT Strategy syllabus

Learning outcome	Assessment criteria		ITIL [®] 4: DITS and practice guide refs	DITS Study Guide refs	Bloom's level	Marks
5 Understand strategic approaches made possible by digital and information technology to achieve customer/ market relevance and operational	5.1	Know how to apply the following approaches to achieve customer/ market relevance: a) Customer journeys b) Omnichannel delivery and support c) Context-sensitive delivery and support d) Customer analytics e) Customer afeoback and Customer 360 approaches	a) 5.2.1, 5.2.1.1 b) 5.2.2.1, 5.2.1.2 c) 5.2.1, 5.2.1.3 d) 5.2.1, 5.2.1.4 e) 5.2.1, 5.2.1.4 e) 5.2.1, 5.2.1.5, 5.2.1.6	a) 6.1.1 b) 6.1.2 c) 6.1.3 d) 6.1.3.1 e) 6.1.3.2, 6.1.3.3	BL3	2
excellence	5.2	Know how to achieve operational excellence in the four dimensions of service management	5.2.2 (including subsections)	6.2	BL3	2
	5.3	Understand the financial aspects of DITS in terms of the following: a) Financial policies b) Portfolio optimization c) Funding projects, products, and services d) Balancing the cost of innovation and operation e) Charging models	a) 5.1.3, 5.1.3, 5.3.1 c) 5.1.3, 5.3.1 d) 5.1.3, 5.1.3, f) 5.1.3, f) 6.1.3, f) 6.1.4, f) 6.1.4,	a) 6.5 b) 2.3.1 c) 6.5.1 d) 6.5.2 e) 6.5.3	BL3	2
	5.4	Assess strategic approaches for digital organizations	5.2 (including subsections)	6	BL4	

Table continues

Table 13.1 continued

Le ou	arning tcome	Assessment criteria		ITIL [®] 4: DITS and practice guide refs	DITS Study Guide refs	Bloom's level	Marks
	Understand the risks and opportunities of DITS	6.1	Explain the concept of risk management in the context of a digital organization	11.1, 11.2, 11.3 (including subsections for all) and the risk management practice guide 2.1, 2.4 (including all subsections)	7	BL2	1
		6.2	In the context of DITS, explain how to: a) Identify risk b) Assess risk	11.5, 11.7, 11.8 (including subsections for all)	a) 7.1.4 b) 7.1.5, 7.1.6	BL2	1
		6.3	Explain the concept of risk posture and show how to determine an acceptable balance between opportunity and risk	11.10, 11.11, 11.12 (including subsections for all)	7.1.7	BL3	1
		6.4	Explain the concept of innovation, including its key elements and techniques	10.1, 10.2, 10.3, 10.5, 10.6, 10.10 (including subsections for all)	7.2	BL2	1
		6.5	Know how to apply techniques to develop and maintain a culture of innovation	10.5, 10.8, 10.9 (including subsections for all)	7.2.5	BL3	1

ITIL 4: Digital and IT Strategy syllabus

Le ou	arning tcome	Asse	essment criteria	ITIL [®] 4: DITS and practice guide refs	DITS Study Guide refs	Bloom's level	Marks
7	Understand the steps and techniques involved in defining and advocating a	7.1	Know how to use a digital readiness assessment to perform a gap analysis between an organization's current and desired positions	4.3 (including subsections)	8.1	BL3	1
	digital and IT strategy	7.2	Explain how to define and communicate a vision and a strategy	3.4 (including subsections), 5.1.1, 5.1.2	2.2	BL2	1
		7.3	Know how to use a business case to advocate a digital and IT strategy	5.3.2, 5.3.3, 5.3.4 (including subsections for all)	8.2	BL3	1
8	Understand how to implement a digital and IT strategy	8.1	Know how to define operating models for digital organizations	2.9, 12.2 and the following practice guides: architecture management 2.1, 2.4, and workforce and talent management 2.1, 2.4 (including subsections for all)	9.2	BL3	1
		8.2	Explain the major skills required of leaders in a digital organization	6.2 (excluding 6.2.1), 9 (including subsections)	9.3	BL2	1

Table continues

Table 13.1 continued

Learning outcome	Asse	ssment criteria	ITIL [®] 4: DITS and practice guide refs	DITS Study Guide refs	Bloom's level	Marks
	8.3	Apply the following approaches to strategy coordination and implementation: a) Large-scale transformation b) Incremental transformation c.) Mergers and acquisitions d) Individual changes	a) 6.1, 6.2.1, 6.1.1 b) 6.1, 6.2.1, 6.1.2 c) 6.1, 6.2.1, 6.1.3 d) 6.1, 6.2.1, 6.1.4	a) 9.1.1 b) 9.1.2 c) 9.1.3 d) 9.1.4	BL4	
	8.4	Explain approaches to parallel operating models (POMs)	8.2 (including subsections)	9.4	BL2	1
	8.5	Explain how to assess the success of a digital and IT strategy	7.1, 7.2, 7.3, 7.4 (including subsections for all), measurement and reporting practice guide 2.1, 2.4 (including all subsections)	9.5	BL2	1
	8.6	Explain the typical activities of a digital transformation programme	6.3.4 (including subsections)	9.6	BL2	1

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Further information

Publications

The ITIL 4 product suite comprises a range of core and supplementary guidance to support you on your IT service management journey. It offers essential interactive digital resources to enhance your learning experience and prepare you for the ITIL 4 Digital and IT Strategy exam, including an official revision app. For more information, visit the AXELOS best-practice website at:

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https://www.axelos.com/certifications/itil-certifications/itil-managing-professional-itil-4

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workforce and talent management practice 103–104 workforce strategies 50–51 working capital funds 58 ITIL®4 DITS: Reference and Study Guide will help all those preparing for the ITIL 4 Leader: Digital and IT Strategy qualification, and it will also serve as a quick and easy reference for those who want a high-level authoritative overview of the AXELOS core guidance. With information on the exam and assessment criteria, this is an ideal study tool, authored by the experts who led the DITS core guidance. In conjunction with ITIL®4: Direct, Plan and Improve, this module will help those who want to gain status as Strategic Leader in the ITIL 4 qualification journey.

This title focuses on the alignment of the digital business strategy with IT strategy. It also covers how disruption from new technologies is impacting organizations and how businesses are responding. Key topics include responding and adapting to digital disruption, leading teams through transformational change, designing strategic approaches for digital organizations, and creating a culture of innovation and learning.

"This reference guide is a tool to be layered into your existing toolbox, arming business and IT leaders with information about how to build unified and coherent strategies on several levels – business, digital, and IT. It will guide your perspective and improve your knowledge, positioning you to collaborate more effectively on business strategy." Hillary Rosenfeld

This is a practical and portable pocket-size reference that's perfect for quick and easy learning.

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