

8 DEFINING THE SOLUTION

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INTRODUCTION

One of the key activities conducted by business analysts is the analysis of the gap between where the business is currently and where it needs to be in terms of its processes and systems. However, analysing the gap requires detailed thought and an understanding of the implications associated with implementing the proposed changes. While addressing the problematic areas identified during the analysis process, the selected option will also need to align with the defined business architecture for the organisation.

This chapter looks at two aspects regarding the development of options for business change:

1. Analysing the gap between the current and desired business systems.
2. Ensuring the alignment of any proposed actions with the business architecture.

GAP ANALYSIS

In essence, gap analysis requires the business analyst to explore the differences between a current state and a desired future state. Gap analysis can apply at different levels, depending upon the situation. A Business Activity Model (BAM) provides a conceptual overview of a desired future business system, showing 'what' activities would be needed to fulfil a stakeholder perspective, or where this is a consensus BAM, the agreed perspective. Each of the activities shown on the BAM may be examined in order to identify where deficiencies lie. At a more specific level, gap analysis may be used to examine any of the following areas:

- the 'as is' and 'to be' business process models;
- the competencies held by an individual and those required for a particular role;
- the IT system requirements and the features offered by an off-the-shelf software package.

Identifying areas of concern

The activities on the BAM should be inspected and categorised in order to identify those requiring further attention. Three categories may be used for the activities:

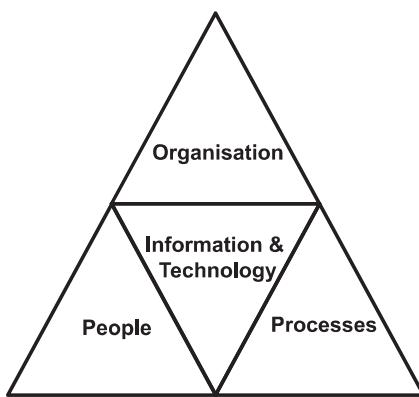
- operating satisfactorily – no immediate action;
- some issues to be addressed – action required;
- not in place – urgent consideration.

Categorising the activities in this way allows us to prioritise the work in line with the original objectives and scope for the business analysis work. Once we have an idea of the areas requiring most attention, we can conduct the gap analysis at a more detailed level, focusing on 'how' the work is conducted.

Framework for gap analysis

In Chapter 5 we discussed the techniques which may be used to investigate and represent a current business area or situation. As explained in that chapter, it is often the case that the initial investigation focuses on modelling the processes or defining the requirements but this can lead to the change proposals being limited or failing to address the real problems. The holistic approach adopted by business analysts helps to avoid such issues. When taking a holistic approach, the analysts ensure that they consider aspects such as the organisation's structure, culture and management style in addition to examining the business processes and IT systems. The POPIT model, shown in Figure 8.1, can help considerably with this investigation as it provides a framework and aide-memoire that helps ensure that the analysis considers all of the required elements.

Figure 8.1 The POPIT model



The POPIT model will be used to organise the gap analysis discussion below.

Processes

The usual starting point for gap analysis is to consider the 'as is' and 'to be' processes. This is a good place to begin because any changes made to processes inevitably require other POPIT elements to change. This may range from a relatively minor change of a job description to a significant revision of the entire team structure. For example, if a

process improvement requires that two roles are to be merged, then there is likely to be a corresponding impact on the structure, job role descriptions, skill requirements and IT systems. The definition of the revised processes will need to be clear and unambiguous which is why using a standard modelling technique, such as that described in Chapter 7, can be extremely helpful. It is also important that a more detailed definition is developed, representing the procedures to be applied when individual tasks are undertaken; this is necessary to support the definition of the IT requirements, clarify any new process documentation requirements, support the development of revised job role descriptions and form the basis for training in the new processes.

Information and technology

Business process improvements are often concerned with the retrieval and distribution of information so gaps associated with this area are often identified. During gap analysis, the information required should be analysed using techniques such as document analysis and modelled using entity relationship models or class diagrams. These help to identify the information needed to perform the business processes, identify where additional information is required and clarify the information requirements.

The technology element of the POPIT model is often the core enabler of the business change. Typically, it will be important to think about the following areas:

IT support

If the 'to be' business processes require additional IT support, the analysts will need to consider the requirements that should be delivered by the technology. This may mean the functional requirements but may also lead to the definition of non-functional requirements. These requirement types are discussed further in Chapter 11. Many organisations are constrained by legacy systems which are not very adaptable to changing business needs or by poor scalability – the capacity of the systems to handle higher volumes. These issues need to be considered when introducing new processes as they can represent a gap that it will be important to address.

Accessibility

When introducing a change to the IT systems used to perform processes, it is important to ensure that the systems are as accessible as possible; this means considering the user population for the systems. If there is poor accessibility, the IT systems may not be used effectively. If business staff are unable to use, or have difficulty in using, a system they will avoid doing so, which is likely to lead to them developing unauthorised and undesirable workarounds in order to conduct their work. Other stakeholders, such as customers and suppliers, may decide it is easier to work with other, perhaps competing, organisations.

Alignment with the enterprise architecture

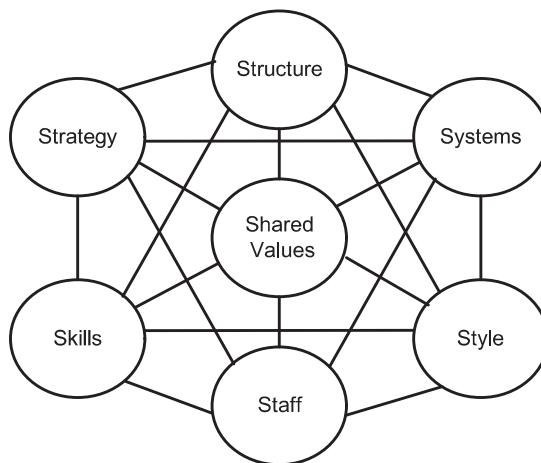
A major problem in many organisations is that the IT systems are not well-integrated with each other or with the overall infrastructure that exists for the delivery of the IT services. This can lead to problems such as limited automatic data transfer, which may result in the re-keying of data, inconsistent data formats and definitions, and different systems holding differing values for the same data. During gap analysis, it is critical that

such issues are considered. Introducing new IT functionality without considering how this impacts upon, or needs to align with, the existing IT systems and infrastructure may end up introducing additional problems rather than solving those that exist currently.

Organisation

This is often the area that is overlooked during gap analysis and option development. However, it is extremely important as it can be where gaps exist that have the potential to undermine the new business system and processes. One of the reasons why a holistic view is so important during the investigation of the current system, is that it causes us to consider organisational aspects such as structure and culture. McKinsey's 7-S model (Figure 8.2), introduced in Chapter 3, can be useful here, providing a framework for thinking about the different elements that contribute to the organisational view.

Figure 8.2 McKinsey's 7-S model



The 7-S model sets out the aspects of the organisation that need to be considered if a change is to be introduced successfully. If we map this onto the POPIT model, we can see that some of the 7-S elements are already covered:

- 'systems' is analysed from the three views of process, information and technology;
- 'staff' and 'skills' form part of the people view.

So, from the organisation perspective, we need to think about the remaining four aspects: shared values, style, strategy and structure.

The shared values are at the core of the organisation. In undertaking a gap analysis, we need to ask if these shared values are explicit and communicated, and if they really help drive the other areas such as the systems and structures. Moving to a new, desired

position, may require us to think about the manifestation of any inconsistent views in the existing business system and the impact of values upon the work practices. We also need to consider the style adopted by management and the culture that exists within the area under consideration. Is this in line with the values and the strategy and will it help in the introduction of the desired changes or will there need to be some work to align this? More tangibly, the structure of the business area may need to be changed. At a micro level, some job roles may need to be combined but there may also be impacts at a broader level whereby whole teams or even departments need to be merged or reorganised. It is also possible that more fundamental change to the structure may be needed such as the change from a regional to a product-based structure.

It is sometimes said that the key aspects of the McKinsey model are not the individual elements but the lines that connect them. Whatever the changes, there must be congruence between the different elements and, where this is not the case, there is some misalignment in the organisation which should be addressed. For example, there may be a difference between what managers say they want (strategy) and the behaviour they expect (style).

People

It is particularly important that any business change proposals set out the approach to deployment that will be adopted, including planning for communicating the changes to any affected staff. The analysis should consider the impact upon the people who will perform the work and identify any gaps to be addressed. The following areas are particularly important:

Skills

We need to think about what skills the new job roles require, how much support will be needed during the transition and what training should be delivered to ensure the smooth implementation of the new business processes. The changes may generate a need for training in the new tasks, the new process flows, the new information or even the new rules to apply when making decisions. The events that trigger the tasks may have changed or the information used may originate from different sources. All of these aspects needs to be considered in order to define the training and support needs. For some business changes, the initial communication and support may have been inadequate so training is required even for tasks that have not changed.

Recruitment

If there is a skills gap, there may be a need for further recruitment of staff. The definition of the required skills will help to provide a basis for any additional recruitment. However, there may be a more significant gap in that there may not be a properly defined recruitment policy and inadequate methods may be used for recruitment. If either of these is the case, problems with the team's skills may result and the business changes may be undermined. Therefore, it is important to consider staff recruitment policies as part of the gap analysis activity; they may cause problems during deployment if we need to change or extend the skills of the team but, in the longer term, may also serve to perpetuate recruitment issues.

Staff development

One of the gaps may concern the approach adopted to career development. It is important to think about questions such as 'Is there an appraisal scheme in place?' and if so, 'Does it appraise the right things and lead to effective skill development?' Sometimes, it is useful to think about how the current personal development processes are working as they may be the root cause of some problems. If so, they are likely to interfere with the successful introduction of changes.

Motivation and reward

It can also be useful to consider the levels of staff motivation and, more tangibly, the reward systems in place. Again, there may be issues here that can be causing problems and undermine the performance of the organisation. For example, if there is a problem with staff motivation, the introduction of a new suite of processes and systems may worsen this. The alignment of reward systems with the objectives of the organisation is vital if the change is to succeed.

FORMULATING OPTIONS

Once we have an understanding of the gaps to be addressed, we can begin to formulate the options for change. As in all business changes, we need to ensure that any proposals are feasible from the financial, business and technological perspectives. The approach to this is considered in Chapter 9. The key is that the options are holistic. It is of no use putting forward proposals that change one or two elements of the POPIT model while not considering the others; the best IT systems in the world will not operate effectively if the people do not know how to use them or cannot access them. Similarly, it is not possible to change a team structure without considering the impact on individuals and ensuring that they are clear about the new way of working.

DEFINING BUSINESS REQUIREMENTS

The outcome from the gap analysis is a list of business requirements that need to be delivered. These requirements are likely to be at the 'what' level rather than dictating the precise ways in which they will be met. However, at this point, there are likely to be some requirements that will need to form part of the IT solution. Chapters 10–12 discuss the definition and management of requirements.

INTRODUCTION TO BUSINESS ARCHITECTURE

Organisations are becoming increasingly aware of the need to hold a formal definition of the architecture of their business. Any proposed business change must align with the business architecture. It is common for even small changes to affect multiple processes, IT systems and databases requiring vast expense, often without the change adding any real value and causing disruption to areas of the business that were working well. In many cases, this is because business analysts usually work in one designated area and do not always have the opportunity to see how the change they propose fits within

the broader picture or indeed whether work being undertaken elsewhere may impact upon their work. Without a high-level model or blueprint of the overall business, and its interface with its customers, suppliers and partners, any proposed change will be difficult to assess in terms of the impact and potential disruption.

A business architecture begins to evolve when two or more business areas (including those from outside the scope of the specific business itself) are thought of as an integrated set of capabilities that delivers value. The business architecture helps to provide increased visibility and effectiveness. Once a high level plan or blueprint of the organisation exists, it is possible to evaluate various scenarios for change in terms of their impact and effectiveness, and ensure that any changes to be undertaken can be aligned with this overall business architecture. Therefore, it can be seen that a business architecture provides a bridge between the organisation's defined strategy and the execution of the strategy.

DEFINITION OF BUSINESS ARCHITECTURE

The Business Architecture Guild (2014) defines business architecture as:

A blueprint of the enterprise that provides a common understanding of the organisation that can be used to align strategic objectives and tactical demands.

This definition encapsulates the important role that the business architecture plays as an interface between strategy and the implementation of change. Hence, employed effectively, a robust business architecture results in the following:

- the strategy drives changes to the business architecture;
- the business architecture informs and refines the strategy;
- the business architecture translates the strategy for execution;
- the strategy execution enables and generates improvement to the overall business architecture.

A business architecture has three primary objectives:

1. To promote organisational health: to ensure the longevity and well-being of the organisation, generating an ability to be flexible and agile in the delivery of change.
2. To help fulfil unrealised opportunities: promoting appropriate reaction to external influences and proposed initiatives, and identifying the areas of the business which would most benefit from any transformation.
3. To aid organisational performance in a competitive market place: implementing best practice, encouraging reuse, monitoring business metrics and focusing on those areas of the business that deliver the most value to the end customer.

In addition, it is worth keeping in mind the following key points about a business architecture:

- The scope of a business architecture is the scope of the business.
- A business architecture is not prescriptive.
- A business architecture is developed iteratively.
- A business architecture is reusable across business units and businesses.
- A business architecture is not about the deliverables, it is more concerned with reflecting the underlying philosophy and values.

While a business architecture represents the business, its coverage does not begin or end at the boundaries of a specific enterprise. It must also be capable of representing aspects of the business that are undertaken by external stakeholders such as outsourced suppliers. This is supported by the use of techniques such as value stream analysis and is consistent with a focus on what the business does rather than how it does it.

STRUCTURE OF A BUSINESS ARCHITECTURE

There are many models and documents that could be included as artefacts within a business architecture; in effect they would provide many different views of the business. For example, the artefacts of a business architecture might document any of the following:

- capabilities;
- values;
- information;
- products;
- suppliers and partners;
- motivations;
- business units;
- policies.

It is important to consider the maintenance overhead that may arise if there are numerous artefacts, given that they would all need to be defined and maintained. Also, cross references between artefacts will be required in order to ensure overall consistency. Any artefacts that are included in an organisation's business architecture should always be at a high level of abstraction and subsequently mapped to the detailed artefacts and models more familiar to business analysts. For example, the business architecture artefacts would map onto, and align with, the detailed business process models, but would not contain these processes.

Evolving best practice has shown that the key elements of a business architecture represent the following areas:

- business motivations;
- business capabilities;
- value streams (which can be mapped to more detailed business processes);
- organisational business units;
- information concepts.

From this list, the business capabilities and the value streams that enable them, are widely regarded as the essence of an effective business architecture; it is with these artefacts that the construction of a business architecture should always begin. Business analysts can use the artefacts to ensure that any work they undertake and changes they propose, are consistent with the business architecture. Also, the business analysts may add to the business architecture over time in order to extend its coverage. This would be done within a robust governance regime to ensure continued consistency and correctness of the business architecture artefacts.

BUSINESS ARCHITECTURE TECHNIQUES

There is a wide range of techniques that can be employed when defining the business architecture. These techniques vary from those that focus on the bigger picture of the business architecture, such as business model definition, business motivation analysis and capability modelling, through to more detailed techniques such as value stream analysis, value network analysis and information mapping.

The two key techniques from this list that form the essence of an effective Business Architecture are:

- business capability modelling;
- value stream analysis.

Business capability modelling

Capability models represent, at a high level, what the organisation needs to be able to do in order to deliver value to customers. While these initial capabilities can be decomposed to a number of levels, they should never reflect how delivery is actually achieved in practice.

A capability is a particular ability to achieve an outcome and reflects something a business is able to do that creates value for a customer. A full business capability model usually investigates and models the whole organisation across a number of business strata (layers). The main strata found on a typical business capability model would be:

- strategic or direction setting;
- core or customer facing;
- supporting.

Within each of these strata, Foundation (level 1) capabilities are identified initially and are then expanded into more detailed capability groups and, ultimately, standalone reusable capabilities.

Table 8.1 provides some examples of business capabilities at the Foundation level.

Table 8.1 Examples of foundation level business capabilities

Stratum	Foundation capabilities
Strategic	Business planning Capital management Policy management
Customer facing	Distribution Customer service Product development Account management
Support	Staff recruitment Procurement Vendor management

It should be noted that the following rules apply when producing a business capability model:

- capabilities should be defined in business terms;
- capabilities should be named as nouns not verbs;
- capabilities are static (value streams show movement);
- capabilities should be unique across the entire capability model;
- capabilities are enabled via value streams.

Organisations that document and maintain business capabilities can change more quickly and effectively than those that do not. It is also invaluable when working with external suppliers or partners if the organisation has a view of the capabilities needed to deliver the required value to customers. For example, if considering working with a partner organisation, the definition of the capabilities required for the services to be delivered by the partner, will help in the evaluation – and possible removal – of prospective partners.

Value stream analysis

There are many techniques that can be used to investigate and represent the delivery of value. The value stream approach is one of the most powerful when used as part of a business architecture.

A value stream is an end-to-end collection of high-level linear stages that create an outcome of value to a specific customer group. This may be either the ultimate customer or an internal end-user of the value stream. Value streams are used to identify, map and analyse the value exchanged between an organisation and various stakeholders (internal and external) that interact with it. They focus on the delivery of value and may not reflect the way the work is done in practice.

The value stream shows the main sequential stages which add value to the customer. It should be noted that the value stream considers all the stages needed, regardless of how many organisations or business units may actually be involved in delivering the value. Figure 8.3 shows an example of a value stream dealing with mortgage applications on behalf of a mortgage lender.

Figure 8.3 Example value stream for mortgage application

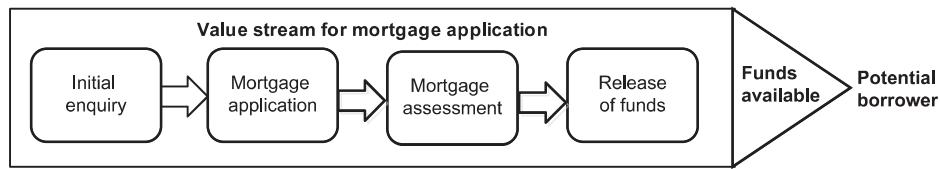


Figure 8.3 shows the value stream for 'Mortgage application' decomposed into its key stages in sequence. The diagram does not show who performs each of the different stages. It can be extended by mapping the business capabilities onto the stages of the value stream, showing how each stage is enabled by these capabilities.

It is common for each of the individual stages within a value stream, such as the one shown here, to be enabled by a number of organisational capabilities identified from the previously defined Business Capability Model. In most cases these would usually be either level 2 or level 3 capabilities rather than at a Foundation level.

When producing a value stream, it is worth noting some key guiding principles. Value streams should:

- be stakeholder focused;
- take a holistic view;
- be customer centric;
- facilitate further decomposition;
- help identify which business capabilities help achieve stakeholder value.

Organisations that understand the value streams within which they operate, and who appreciate their role in delivering value, are well placed to promote the effective delivery of value to the recipients of their products and services.

SUMMARY

Gap analysis is concerned with identifying the differences between the current business situation and the desired future business system. When analysing the gap, we need to take a holistic view, considering elements such as the business processes and people in addition to the processes and IT systems. It is important that any proposed changes are aligned with the business architecture. The overall goal of a business architecture is to enable an organisation to focus on the products and services it delivers to its customers and the value these customers receive. Hence, any business architecture needs to reflect a high level of abstraction, considering what the business needs to do to deliver value to its customers rather than how, who or where this value is delivered. Techniques such as business capability modelling and value stream analysis may be used to represent such an abstraction.

REFERENCE

Business Architecture Guild (2014) *Business Architecture Body of Knowledge*, online resource, available at <http://www.businessarchitectureguild.org/> [accessed 20 June 2014].

FURTHER READING

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