

Evolving organisations to today's complex environment



There is growing recognition that organisations face an increasingly complex environment. However, many boards and senior executives feel uncertain about how to approach this new and evolving context. This, in part, results from a lack of understanding of what complexity is and what gives rise to it. By applying concepts from the scientific study of complex systems a new and comprehensive approach to evolve organisations to succeed in complex environments can be developed.

This article provides an overview of what creates complexity and offers a new approach to evolving organisations to today's complex environment.

There is broad agreement that the world is becoming more complex and that this is impacting organisational effectiveness. The world is becoming more interconnected. Information is more widely available and the volume is increasing. Political, social and economic changes are happening more frequently, driving greater levels of uncertainty. All of this makes leading, managing and directing organisations seemingly more challenging, with many having difficulty in finding a winning approach.

Despite the apparent issues the modern context creates, there are approaches that can help organisations thrive and take advantage of the opportunities complexity creates. However, before exploring these it is worth considering what complexity is and why traditional approaches won't succeed.

What is Complexity?

Organisations can be thought of as a system with many elements. These organisational systems are, in turn, also part of a broader system, often termed the industry or sector. Like any system, organisations can vary from simple, to complicated, to complex and will behave differently depending on the level of complexity. Determining the level of simplicity or complexity of a system depends on a number of factors.

Firstly, the number of elements influences the level of complexity. Complex systems tend to have multiple elements that are often quite different from each other. However, having many elements doesn't necessarily make a system complex. The number of connections between the elements and the nature of those interactions are of critical importance.

This is the second factor determining the level of complexity. A complex system will have multiple interactions between elements and those interactions will give rise to change in an unpredictable way. The elements of the system interacting with each other will create changes in those elements that will, in turn, change the nature of future interactions. As a result the system will evolve in a non-linear way, with no single predictable future state.

In contrast, a complicated system may have many elements, however those elements interact in consistent ways and produce predictable outcomes. With enough knowledge of the elements and how they interact, reliable predictions about the future of complicated systems can be made. Whereas, the future of a complex system is inherently uncertain.

This may seem to imply a chaotic outcome, however there is one further important factor that distinguishes complex systems from chaos. That is the property of emergence. A complex system will be lightly constrained (as opposed to the unconstrained nature of chaos) and this will allow order to emerge. Operating within some, often simple, parameters, patterns and apparent order can emerge.

To understand the difference between complicated and complex systems, it might be useful to think of the difference between a car and traffic. The car is a complicated system; it has many parts that must all interact to make it work.

However, with enough knowledge of the right elements it is possible to predict how the car will move. Now consider that car in traffic. It now also responds to the other cars on the road. Changing lanes, slowing down to avoid a car in front or even taking a different route to avoid congestion. It is now in a complex system

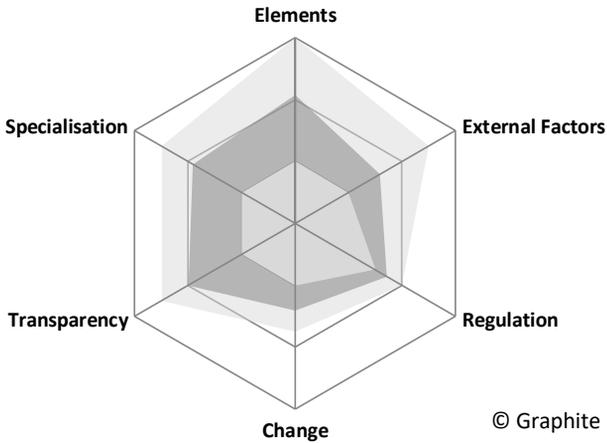
There is a lot more to understanding the nature of simple, complicated and complex systems, however the above summary should provide sufficient context for what follows.

Why a new approach is needed

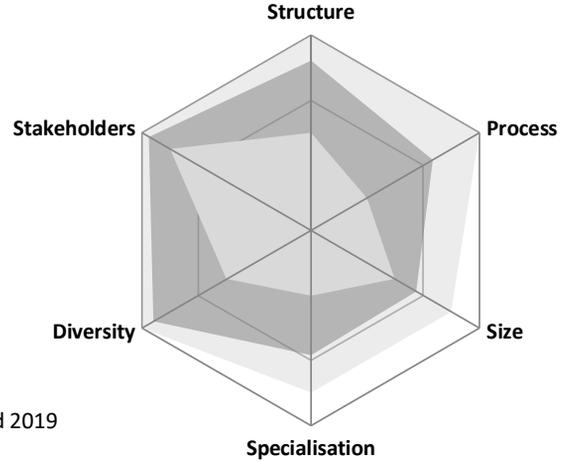
The growing level of complexity, and the properties of complex systems, put strain on traditional approaches to directing and managing organisations. Traditional approaches, whether it be in relation to strategy, governance, resourcing, organisational design, risk management or culture, are underpinned by one key assumption – stability.

The models that have been used successfully for many decades have assumed a high degree of stability over a short to medium term. In other words, it is assumed that the world will be largely the same in five years as it is today. Many also assume that there are only a limited range of possible outcomes.

External Context



Internal Context



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Figure 1: An evaluation of sources of complexity in the industry and organisation.

Unfortunately, as the world becomes more complex neither of these holds true. We can be almost certain that the world be different in twelve months and very different in five years. However, whilst we know things will change, it is almost impossible to predict what that change will look like. This makes traditional approaches, such as the five-year strategic plan, ineffective.

The other challenge organisations face is one of siloed approaches. Many organisations will consider one aspect of performance largely in isolation from others. For example, a strategic plan will be developed without a detailed assessment of culture or ensuring organisational design and processes support the plan.

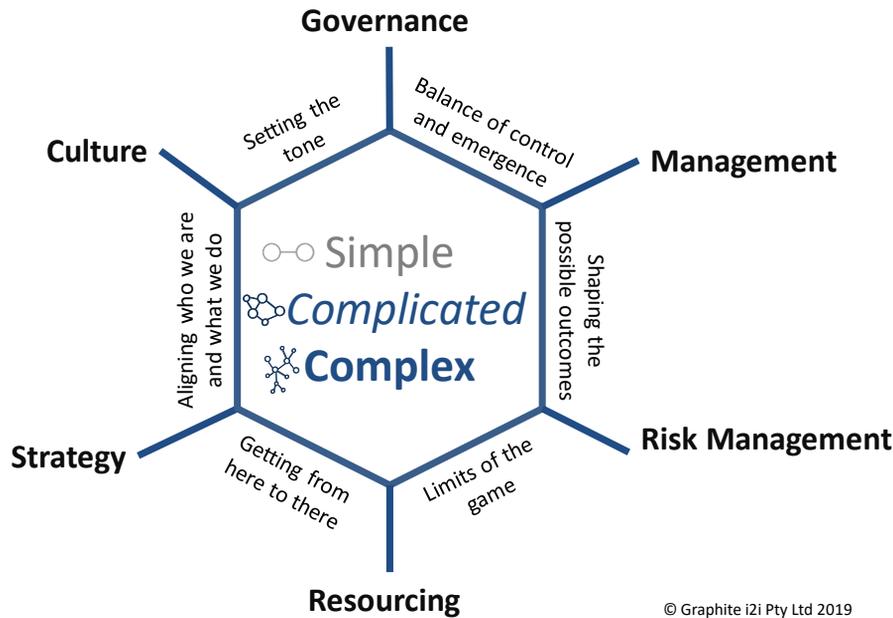
To be successful in an increasingly complex world organisations need a new, holistic approach to evolve to an uncertain context.

A new approach

To adapt to the new environment, organisations need to go through a thorough process of evaluation and transformation.

Evaluation

The first step is to evaluate the current situation. This involves identifying those areas that give rise to complexity and those that are simple or complicated. This is done from both an external and internal perspective. Analysis of the industry is undertaken to identify elements that either give rise to complexity or seek to constrain it. This includes assessing the number of elements in the industry, their interactions, rate of change, regulation and information flows among others. A similar analysis is conducted on the internal environment covering areas including, for example; structure, processes, role clarity and stakeholders.



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Figure 2: The $_6C$ Framework for organisational transformation

The analysis can be used to easily highlight those areas that are the greatest sources of complexity, as shown in the diagram on the previous page. The diagram shows the sources of complexity identified recently for a large not-for-profit client operating in a range of areas. The centre of each web represents simplicity, whilst the outside edge is complexity. Each shows the average (dark grey) complexity and the high and low points (light grey) across a range of categories.

The data from this analysis is used to classify elements as simple, complicated or complex. Complex and complicated elements can be further categorised based on the organisations ability to influence the level of complexity.

Transformation

Having undertaken a detailed evaluation of the internal and external environment, the organisation can then consider its approach to transformation. This is done

with consideration of six key lenses: governance; management; risk management; resourcing; strategy; and culture. The approach taken in each of these lenses needs to be appropriate for the degree of complexity and each need to align. For example, areas identified as complicated will require a different approach to those considered complex.

The diagram above shows the $_6C$ Framework which is used to develop an appropriate approach for simple, complicated and complex environments under each lens.

Using this framework and the analysis undertaken in the first step, the organisation can develop a transformation plan and begin evolving to a changing environment. However, given the nature of complex environments, the process of identification and assessment needs to be regularly updated to ensure the change stays on track.

Conclusion

Today's increasingly complex environment can seem difficult, if not impossible, to navigate, however with the right approach and framework it is possible to set a winning direction.

The first step is to critically analyse the context and identify the sources of complexity, before embarking on a holistic evolution of the organisation.



Contact

To find out more about how to evolve your organisation to today's complex environment, please contact Dr Jason Talbot.



Dr Jason Talbot
Principal
Mobile: 0450 049 444
Email: jason.talbot@graphitei2i.com.au



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