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# TESSERACTS

## MANAGING BY DESIGN

### Using QFD to Transform Management Performance

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# PREFACE

## A new battleground...

They say that the world is getting smaller; that the Internet and world-wide communication are turning us into the global village. But for me, and probably for you, the opposite is true. I live in a village in England, I regularly exchange information with a colleague in mainland Europe, I buy my books from an American bookshop (yes that one!), and I access information from all around the world. And every time I want to buy something, I am faced with literally thousands of options from hundreds of different sources.

In a very practical sense, our world is not getting smaller; it is getting much bigger. Businesses now have competitors they have never even heard of, in places they'll probably never see. Some of these businesses are old and established, and have just had the barriers of distance and communication lowered enough to compete. Some of them are brand new or in fields up to now not considered as competition, but the barriers of habit and history have fallen away.

What is more, the overwhelming vista of options that are now available to potential customers has spawned a new web-based industry; of agencies that gain power and influence by guiding people through the many choices that they face. They collate the options, and provide objective comparisons to make the choice quicker and simpler. Increasingly, potential purchasers can see comprehensive information on a business's offering, performance and track record, and compare it instantly with its competitors'.

## ...with different rules...

Together, these two factors – increasing competition and ready comparison – are demanding a huge shift in the mindset of business. Historically, constraints on choice and information have provided a degree of stability in most markets. Competitiveness has been sustained by incremental improvements such as reducing waste and overhead costs, and steadily improving product and service quality. But now markets are more immediately susceptible to new solutions, to creative alliances, and to innovative ways of working; and failure to keep pace is being rapidly exposed, and exploited.

It is no longer enough for businesses simply to consider how to do the same thing a bit better or a bit quicker. The competition has become

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bigger and more aggressive. The future is not linear with the past. Businesses will only survive if they can grasp fully the emerging risks and opportunities of their new situations, and configure the best of their organisation and resources to meet them in new and creative ways.

Fortunately the problem is, at least in part, also the solution. The same forces that are pressing organisations to step-up their competitive game are also providing a far greater wealth of options and opportunities for doing so.

Unfortunately, traditional methods of business planning provide little facility for handling the resulting complexity; and managing complexity – configuring a wealth of creative options to deliver ground breaking performance – is what business in the new century is all about.

Sadly, the lack of good approaches for deploying ambitious goals, and the consequences of getting things wrong, have driven managers to maintain a conservative approach to business planning; the very antithesis of what is now needed. As a result, they have set mediocre goals; perpetuated inferior practices; failed to inspire the imagination of their people; and have seen survival as success. Most companies have consistently failed to harness the full creativity and enterprise of their organisation to achieve anything like their full potential, because of the weakness of traditional methods for business planning. In the future, this will prove fatal.

### ...needs new weapons!

It is therefore clear that, if organisations are to be empowered to thrive in the new business world, they will need far more effective business-planning tools than most that are currently in use. There is however, one approach which is more than capable of meeting this need; a tried and tested process that has already had dramatic results for companies like Smith & Nephew, Emerson, Siemens and Microsoft. It is called Quality Function Deployment (QFD), and it provides a structured and participative approach for effectively harnessing the new levels of challenge and complexity inherent in business planning today.

QFD is probably the best kept management secret going (albeit not intentionally). Originating in Japan, it is an extremely effective tool for working out what you are trying to do and how you are going to do it, and for exploring the opportunities in both. It is powerful enough to transform a global business, simple enough to be developed on a flipchart, and flexible enough to design anything from a complete organisation to an isolated activity or product.

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And it is the combination of these qualities that make it so effective in business planning. One tool, linking top to bottom, strategy to decision, purpose to action, intent to desire and mission to culture. It links them simply, visibly and inexorably, across all levels of the organisation; guiding and harnessing every effort. Yet, at every level, it provides opportunities for new ideas and creativity, inspiration and commitment.

QFD enables any organisation, large or small, to map out its objectives; to explore how each of its functions, activities or business processes can leverage its attainment of them; and to translate this into clear strategies. It is an extremely powerful tool for this kind of work, and has enabled a major research organisation to achieve 40% performance improvement in one year, across all of its objectives, and a European-wide assembly facility to make a three-fold improvement in its delivery performance. It is the only tool that can reliably and objectively drive the focus and creativity that businesses will need to excel in the future.

The dramatic performance improvements quoted above, impressive though they may be, are only part of the story. The clear and methodical objectivity of the approach both enables companies to target and deliver huge step-changes in performance, and provides a sustainable basis for them to build on these for the future. QFD does this because it drives improvement through the management team, in a way that develops their identity, using a process that they can replicate. It equips them to:

- identify and prioritise goals that strategically focus the organisation on its opportunities
- align all their potential – people, resources and facilities – behind achieving those goals
- minimise inefficiency and distraction by objectively challenging activities that no longer fit their strategy
- provide a framework to harness the creative energies of their people in driving performance improvement
- effectively monitor and manage their progress, at all levels, to ensure success.

### Quality Function Deployment

Surprisingly, QFD is not a new tool; it was developed at the end of the 1960s in Japan. So the question needs to be asked: If it is so successful, why aren't more people using it? The answer lies in the cultural divide between technical and business issues. For a large proportion of the intervening years, the tool has predominantly been the domain of highly technical product design teams. It has transformed their performance,

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but in doing so it has developed along ever more detailed and complex lines, away from the simple pragmatic style that appeals to management teams.

Clearly, if more managers are to benefit from this approach, the literature needs to be made more accessible to them. They need a more robust and less onerous version of the approach, they need to be inspired with examples they can relate to, and they need to be supported with tools they can readily apply. In short, they need a pragmatic guide to implementing QFD in their business.

That is the purpose of this book.

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## INTRODUCTION

What do we mean by 'Managing by Design'?

On one hand, it implies a sense of intention and predetermination, and on the other it reflects a spirit of creativity, free-thinking and innovation. Both perspectives should be true of effective management, and you will find both heavily represented in the pages of this book. But more than this, 'Managing by Design' reflects the conscious application of a design perspective within the responsibilities of management.

Why?

Because it is extremely effective!

It is also liberating, empowering and inspiring.

However, for many people it is an unorthodox concept and, despite the logic of the concept and the overwhelming benefits that arise from its adoption, people can struggle to assimilate the idea and its implications into their day-to-day thinking.

It is, therefore, a real challenge to attempt to equip the reader with all that they need to practically exploit 'design thinking' through the medium of a book (albeit supported by a website). We rise to this challenge by adopting a number of principles.

- We promote the reading of this book as discovery. 'Unlearning' poor practice is as important to effective management as learning good practice. 'Discovery' provides us with a device in which the reader can challenge conventional wisdom, and adopt new ideas in the context of a deeper understanding of what they are trying to do. For this reason, the main subject of this book is not fully explained until Chapter 6, after the early chapters of the book have taken a quite confrontational look at traditional management.
- We equip the reader with everything needed to successfully adopt a design approach to management. We do not restrict ourselves to the basic mechanics of implementing design thinking. Instead, we explain the personal and organisational implications of a successful implementation and so establish a firm and sustainable foundation for the approach.
- We use a wide, interesting (and perhaps unexpected) variety of means to engage and support the reader in their exploration of design thinking. Effective learning requires a balance of approaches, and we each have different preferences within that. We use story, explanation, exercises, illustrations, diagrams, questions, and unashamed-

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ly copious quantities of other people's wisdom (quotes) to make and reinforce the key learning points.

- We create a 'journey' for the reader: a clear flow in the information presented. By employing a novel as the backbone of the book, we suggest a logical, chronological sequence that will make sense to most managers. Readers who are already expert users of the tools we present, may be dismayed at how different aspects of the tools have been split up into different sections of the book. It is important to realise, however, that the order in which we present the ideas is driven by a management agenda, not a purist/technical one.
- We have created a path that can be followed practically. Our goal has been to promote and extend a design perspective on management, irrespective of the specific tools used. To make this perspective useful and practical we focus on one specific design tool: quality function deployment (QFD). The reason for this is that it is the best design tool currently available for exploring and defining complex systems simply. QFD has already proven its practicality and benefits in management.
- We have tried to minimise the barriers to applying the learning from the book efficiently. The ideas presented can be applied as a complete system or as isolated practices – this journey really can begin with a single step. Also, we provide a range of supporting materials that can be downloaded without charge from the Internet and adapted to your own particular needs.

The book has been consciously designed to provide you with everything you need to effectively implement and employ 'Managing by Design' within your own organisation. It contains clear guidance, techniques and insight, ensuring that the ideas of design are effectively and practically harnessed; these will deliver the business performance transformation that you will need to compete effectively in the new e-global economy.

By the end of the book, you will know how to:

- establish the need for transformation in your organisation, and commit to QFD as the means of bringing that about
- build a team around you, that is determined to use QFD to deliver clear worthwhile goals and to create a more effective organisation
- co-ordinate and lead the effective implementation of QFD, and ensure that your resources are efficiently focused on delivering the results
- work through the personal challenges and opportunities that QFD provides and to develop a greater personal effectiveness
- adapt and adjust your management forums and routines to support and make full use of the effective application of QFD
- ensure that QFD remains in tune with the changing needs of your business environment, and continues to provide an effective basis for har-

nessing the creativity and industry of your people in transforming your performance.

These 'learning points' correspond to the six main sections of the book, sections A to F.

In order to maximise its effectiveness in preparing you to implement QFD, this book is written in a number of complementary styles.

- (a) On the left-hand pages, the book is written as a text, providing guidance, insight, challenge and practical tips for putting QFD into practice in your organisation.
- (b) On the right-hand pages, the book is a novel, providing a continuous illustration of what it may feel like to implement QFD, and how you might address the issues that it raises.
- (c) In the appendices, numerous cameos of real QFD applications provide examples that you can adapt to your own situation
- (d) Through the Internet, a complementary web-site provides a portal to professionally developed practical tools, materials and handouts, which you can apply to get a flying start in implementing QFD.

How you use the book is entirely up to you and your personal learning style. But feedback to date indicates that the most effective way of approaching the book is as follows.

- Read the novel through first (right-hand pages) to develop an overall picture of the ideas being promoted and their implications (this takes between 2 and 4 hours).
- Scan the pictures, quotes, and titles of the text (left-hand pages) as you are reading the novel, to develop richer depth of understanding, and a grasp of how the text relates to the novel.
- Think through some clear applications for the book in your organisation, and how you would like it to impact on current management practices - develop these thoughts into clear objectives for taking this forward.
- Read the text pages, and then explore in more depth the text sections that are relevant to your stated objectives, and undertake any exercises in them; pay particular attention to the section on 'Personal Effectiveness'.
- Use the Appendices and the associated web-site to equip yourself with any relevant tools and ideas for implementation.
- Set yourself a target for re-reading the book and resetting your objectives at some later date.

The structure of the book is outlined diagrammatically on the next page.

Book Structure	
Introduction	Text Preface Introduction
	Novel 1 Introduction
A Confront the need for transformation	2 Confront confused direction 3 Confront inferior organisation 4 Confront impoverished management practice 5 Confront deficient awareness 6 Confront undisciplined planning
	7 Establish clear and explicit common goals 8 Define the structure of the organisation 9 Exploring ways of working together to deliver 10 Encouraging commitment
	11 Leading the change 12 Proposal reconciliation 13 Managing upwards 14 Driving a consistent approach
	15 Balancing work and home 16 Personal values 17 Clarifying your purpose 18 Reconsidering and re-evaluating your role
	19 Designing your role 20 Making hard decisions 21 Systematic management meetings 22 Tackling issues (Pursuing the goals)
	23 The Roof 24 Process management reporting 25 Pulling it all together
B Build a team that is determined to drive transformation	Epilogue
	Conclusion
C Lead and coordinate the implementation of QFD	Appendices
D Develop a greater personal effectiveness	
E Adapt management practice to fully exploit QFD	
F Coordinating QFD in large organisations	

This book owes a vast amount to the experience and generosity of my past clients (and current friends). Together we have made most of the mistakes that it is possible to make, and this book borrows heavily on the experiences that we have worked through together. As a result the novel has been inspired with plenty of real life illustrations – in fact it almost wrote itself.

Managing by Design has been written so that others can obtain the benefits that we have gained out of applying a design perspective to management<sup>1</sup>, without having to repeat all of the painful experiences (although we fully anticipate you may create a few new ones of your own).

Design perspectives in general, and QFD in particular, are immensely powerful tools that will transform the quality and impact of your goal-setting and thereby transform your business. As such it has implications for your whole management approach. This book provides the thinking, the guidance and the tools to enable you to implement them in their fullness and use them effectively.

Good luck, and may God bless you.

Michael Clargo

#### What the symbols mean

-  Relevant quotations and comments<sup>2</sup>
-  Exercise / opportunity to explore the ideas
-  Example / more detail on the topic
-  Guidance and reference materials
-  Tools and techniques to support application

1 In order to differentiate the concepts and ideas proposed by this book, we have referred to them as 'Managing by Design', but to us they are just 'management'. The danger of putting a label on any new management idea is that by doing so you immediately position it in people's minds as a programme, with a shelf-life, and not as 'the way of working'.

2 Many of the quotes in this book have been drawn from one excellent source: The Manager's Book of Quotations, edited by Eigen & Segal and published by Amacom.