

10

Management Models

*How to understand and apply the world's
most powerful business tools*

Fons Trompenaars and
Piet Hein Coebergh

Extracted from *100 Management Models: How to understand and apply
the world's most powerful business tools*



infiniteideas

Copyright © Fons Trompenaars and Hogeschool Leiden

The right of Fons Trompenaars and Hogeschool Leiden to be identified as the authors of this book has been asserted in accordance with the Copyright, Designs and Patents Act 1988.

First published in 2014 by
Infinite Ideas Limited
36 St Giles
Oxford
OX1 3LD
United Kingdom
www.infideas.com

All rights reserved. Except for the quotation of small passages for the purposes of criticism or review, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except under the terms of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London W1T 4LP, UK, without the permission in writing of the publisher. Requests to the publisher should be addressed to the Permissions Department, Infinite Ideas Limited, 36 St Giles, Oxford, OX1 3LD, UK, or faxed to +44 (0) 1865 514777.

Brand and product names are trademarks or registered trademarks of their respective owners.

'There is nothing so practical as a good theory.'

KURT LEWIN

Contents

Preface	vii
Introduction	1
THE MODELS	
MODEL 1 The Bottom of the Pyramid, C.K. Prahalad (2002)	25
MODEL 2 Multiple Stakeholder Sustainability, Fons Trompenaars and Peter Woolliams (2010)	27
MODEL 3 Reverse Innovation, Vijay Govindarajan (2009)	30
MODEL 4 Blue Ocean Strategy, W. Chan Kim and Renée Mauborgne (2005)	32
MODEL 5 Six Stages of Social Business Transformation, Charlene Li and Brian Solis (2013)	34
MODEL 6 Social Media ROI Pyramid, Jeremiah Owyang (2010)	36
MODEL 7 Situational Crisis Communication Theory, Timothy Coombs (1995)	36
MODEL 8 Communication and Employee Engagement, Mary Welch (2011)	42
MODEL 9 Balancing Transparency, Piet Hein Coebergh and Edi Cohen (2009)	44
MODEL 10 The Blue Economy, Gunter Pauli (2010)	46

Preface

In the past, aspiring managers usually learned their profession by trial and error over many years of experience. If there was little opportunity for job rotation or changes in departments, these experiences might be very limited. Today's students and managers can benefit from a wide range of research studies, from which various management theories have been assembled. These help explain and capture the essential components of many different aspects of business management. Reading, understanding, exploring and learning about such theories can accelerate the process of becoming an effective business and management professional. However, when these research outcomes are published, they usually appear in formal academic journals and, while scientifically sound, they don't immediately lend themselves to professional practice.

The author team for this book has sought to mine this wealth of ideas and to assemble a collection of powerful, key models and theories into one volume. Together, they cover the main areas of management common to many organizations, and thus provide a foundation for a future career across diverse business sectors in a variety of job function areas. Each model is described and discussed in the context of the relevant thematic area it supports.

It should be remembered that a 'model' is a representation of certain elements of a system, selected for experimenters to explore and/or describe specific aspects of the system for a particular purpose. They are not built to represent the complete system. Thus we might build a scale model of a motor car specifically to explore how air flows over different body-shape designs in a wind tunnel; another model to see how it deforms when crashed; and another to test how it drives around corners. Physical models like these are called 'iconic models', but models can take other forms. Thus 'symbolic models' are constructed from mathematical (symbols) equations, such as a macro-economic model that links unemployment, government spending and growth, or a micro-economic model that links selling price and advertising to sales volume. Models can also be diagrammatic, like office layout plans. Multidimensional matrix models can represent the competing demands of customers, shareholders, employees and society at large. Today, many models are developed and made operational in computer software. Such models are created by researchers to try to represent the results of their research, or to predict new systems behaviours to work out what research should be done to test them and to explain how the system works

Recalling that models are created for a selected purpose explains why, for example, there are many different models of leadership rather than just one 'perfect model'. Some leadership models have been created to represent leading diverse teams; some are task-focused; some relationship-focused contingency models propose the optimal course of action depending upon the internal and external situation; and servant-leadership reconciles what is good for the organization, and what is good for the individual. Each in turn helps us learn and understand different aspects of leadership. The only single total model of leadership is a good leader.

Models that behave consistently are said to be 'reliable', which is why they are useful in practice. But this does not mean that they are true. The watch on your wrist is probably a sufficiently reliable model of passing time, and you can use it to enable you to be on time for an event or to catch a train. But your watch is not telling the *exact* time (it might be a thousandth of a second fast!). Other models are 'valid', which means they are exactly true for the circumstances of the research. A broken watch is obviously not reliable and is little use if you want to catch a train on time, but it does read the exact time, twice every 24 hours. Thus building a model from research from a single case study of one manager in one department in one organization at one point in time may be true (and thus 'valid') for the actual study, but may not apply to other managers in other organizations, or even the same manager in different situations.

By testing and improving models to see if they are both reliable *and* valid, we can try to build models that work in a wide range of situations, over and above where they were first developed. These help us to manage because we know 'which levers to pull'. Models of motivation, for example, tell us that just paying people more money does not necessarily increase performance or motivation, but praise given in front of others and more responsibility generally do in a global context. But remember that models that describe human interactions in teams may work well in many situations, but might not work (and thus either need to be extended, or a new model created) for new situations – such as a small team of astronauts on the International Space Station trapped together for weeks on end.

So ultimately, the aim of research is 'generalizability'. That is, explanations of system behaviours that apply with reliability and validity in situations more general than the limited areas where they were developed and tested. This generalizability is expressed in what is called 'theory'. As Kurt Lewin said, 'there is nothing as practical as good theory', and for the purpose of this book, we can extend this by suggesting that there is nothing as practical as good theory and using models for learning about management and business to develop your professional practice.

Reading the models in this book, and finding opportunities where you can test them out in different situations, can give you learning experiences that you might not come across readily 'on the job'. Airline pilots learn about flying through thunderstorms on the ground

PREFACE

using simulation models rather than waiting until they are faced with a real threat in mid-flight.

This book will be invaluable to managers in helping them to understand and secure the best from their people, for individuals for their own personal development, and for a broad spectrum of business and management students.

Fons Trompenaars

Piet Hein Coebergh

Amsterdam/Leiden, July 2014

Introduction

The goals of this book

This book is compiled and written for anyone who is interested in applying powerful models and theories to help individuals and organizations become better: more sustainable, innovative, strategic, diverse, internally and externally engaged, leading, communicative and, last but not least, profitable.

In the following pages, we bring together an overview of both classical and newer business management models. This alone is already available in several books and on websites that present their selections of 'greatest hits'. What we aim to offer is more than a typical collection of management models in the following ways.

We have chosen 100 models that have strengths in how they conceptually explain or predict how organizations function, and/or are popularly used for guiding organizations towards implementing some form of change. Further, we have tried to connect and present these models in an integrated framework or logical whole, according to eight common areas or themes of business management, which also provides a perspective that can be applied to any model.

For each of the 100 models selected, we provide the reader with an overview, identifying its essence and results, but also supplying insights into its uses and implementation and comments on its place in social science. In addition, per business area we present a reflection on selected models to help users consider the implications of how our world perspective affects how and when models are used, and thereby may help challenge us to consider this critically before, during and after implementation of the models we choose to use.

Throughout the book, we have set a variety of the 100 selected models in contrast with comparable or even conflicting models, thereby putting many more than 100 models in perspective for the reader – hence the title of the book: 100+ models.

Strengthening the bridge between theory and practice through applied science

The management theories and models we have selected for this book are designed to solve real management issues and have stood the test of rigorous academic peer review,

preferably internationally. They are now presented in a more easily digestible and practical form with the objective of strengthening the connection between academia and practice.

For these reasons, the book is structured in a way that we hope will allow readers to approach the materials in two different ways, depending on their needs. Readers might dip in and out of the book, only referring to specifically relevant sections by way of an introduction or refresher. Or they may go through the book sequentially to better understand how models are influenced by the predominant world perspectives or paradigms in which they are applied, in order to consider a new perspective for looking at business issues and how to solve organizational challenges.

As such, the book is organized around a new, integrated framework of excellence, which sequentially focuses on eight different areas, or elements of business that all need to be developed for a company to grow and develop in the long term. Within the context of a globally changing world that is under serious pressure of environmental degradation, the framework provides a structure for approaching and integrating various elements of business and attempts to highlight how we might build and grow organizations in a broad sense.

In each of the first eight chapters, we provide a selection of *conceptual models* that may be relevant for the improvement of that business area, though often also for other areas. For each section, we provide an introduction to the models we have selected, which are then presented in chronological order. This has been done for ease of quick reference and to allow readers to see how relevant models may have emerged over the years. Models do not only develop over time, however, but more importantly, in relation with other models and theories and along different lines of thought. The illustrated tree at the end of each section's introduction clusters the selected models by a common approach or focus and thereby provides another means to conceptualize the way in which the chosen models have developed. In the second part of each section, we provide a reflection piece, which addresses selected models relevant to the section in order to illustrate or highlight how the approach of understanding dilemmas can impact the application of a model.

Finally, in the ninth section of the book, we provide the reader with an introduction to common and powerful process of implementation models used in business.

For each of the 100 models highlighted in this book, we provide an overview that is consistently classified and presented as follows:

1. A tailor-made *illustration* that expresses the essence of the model, as an adaptation or interpretation of the original academic source.
2. A *problem statement*, explaining what the model is designed to do.
3. *The essence* of the model, describing what the model is about.
4. General and specific guidelines on *how to use the model*.
5. Identification of the typical *results*.

INTRODUCTION

6. *Comments* on the limitations of the model.
7. *Literature*, listing three valuable academic references for the model.

This structure efficiently allows the reader, whether student, trainee, seasoned manager or teacher, to get a basic feel for the potential of the model.

Improving problem-solving through reconciling dilemmas

Modern society increasingly sets paradoxical challenges: think globally and act locally, make a profit while being sustainable, maintain a convincing grand strategy and yet be responsive and agile, nurture innovation while maintaining tradition, encourage diversity as well as a coherent culture. To some, these pairs of goals may seem to present irreconcilable differences. To us, they are reconcilable dilemmas. As Jack Welch put it in his book *Winning* (2005): 'The granddaddy of them all is the short-long paradox, as in the question I often get: "How can I manage quarterly results and still do what's right for my business five years out?" My answer is: "Welcome to the job!"'

Our book contains models that help in pursuing a variety of goals. These goals might be in conflict with competing goals, or with other parts of the context. The challenge is to avoid a zero-sum game, where one entity wins and one loses; to reconcile dilemmas through a creative and intellectual dialogue, creating a win-win situation.

We put the selected models in perspective by offering an overarching sequential model that connects as well as contrasts the eight dominant themes in management theory we have identified. In a reflective section at the end of each part, we discuss, in depth, what the key dilemmas are for each of the eight themes. And finally, we use the 'comments' section in the presentation of each model to pinpoint the inherent limitations. This should help the reader to better reconcile the power of the model with competing challenges.

Evolution of management theories and models

Theories are developed to understand the world. Models are the testable summaries of theories, functioning in social science as instruments to improve organizations. As explained in the Preface, the rationale of this book is to bring together a series of management models in a practical form that embraces the best of theory and practice. In clarifying the aims and structure of this book, it is helpful to understand how the field of business management and the study of associated models originated.

Anyone reviewing the historical sweep of business thinking over the last 150 years will have noticed abrupt and key changes of trends, or 'fashions'. We need to examine the most important fashions that influenced business scholarship in the order of their occurrence and consider why they occurred when they did and why subsequent changes became necessary. To some extent, all of these fashions or phases have left their mark on global business, and all are, to some degree, still with us today. The majority of well-known business models are

American (since most business scholarship originated there), but American business practice is not necessarily the best. For better or for worse, however, it is the most influential.

1. The genius of the Great Entrepreneurs (most prominent 1850–1940)

The earliest studied version of 'business excellence' celebrated the feats of the 'great entrepreneurs', men like John Davidson Rockefeller, Andrew Carnegie, Henry Ford, J.P. Morgan, Sebastian Kresge, Meyer Guggenheim and Alfred Sloan. These American economic giants were famed for their innovative genius. Most of the writing on them either promoted them to management sainthood through extravagant praise, or portrayed them as 'robber barons' who were criticized for attempting to create monopolies. However they were regarded, what made them successful seemed almost wholly mysterious and it was hard to explain their brilliant business accomplishments. Although most business schools did not yet exist during their time, the very first business school that later emerged tended to focus on the particular successes of these men, and we have been trying to learn from their successes ever since. Collectively, these are often described as 'Great Man' theories (note, there is no mention yet of 'great women'), citing men from history such as Gandhi and Napoleon, and even going as far back as Caesar.

2. Measuring results through 'scientific management' (most prominent 1900–1930, yet still with us)

At the turn of the nineteenth century, the great entrepreneurs who had mobilized millions in resources were beginning to pass away. This created a crisis of legitimacy as people began to ask: why should the sidekicks of great men manage so much money and inherit so much power? These heirs had simply done as they were told and were not founders but placemen. These and other large businesses were also being heavily criticized because many had formed themselves into trusts and were fixing prices (and the Great Depression soon led an indignant population to further question the failures of business). Business was in search of respectability. The Harvard Business School was founded in 1928, confirming the new trend of making business into a professional discipline like law or medicine. In the space of two years, students could 'master' Business Administration.

The quest for legitimacy and respectability gave rise to a movement frequently called 'scientific management'. Frederick Winslow Taylor is often seen as the father of this discipline, although he preferred to describe his approach as 'managing scientifically'. Taylor treated human behaviour as a branch of engineering. Workers were expected to comply precisely with orders and were treated like machines. Different ways of producing goods were measured and compared to one another in 'time and motion studies' in order to 'scientifically' measure the most efficient production processes. While managing scientifically and mass production raised productivity by 100% or more, it ran into the problem that human beings rarely do precisely as they are told and often arrange to defy expectations.

3. Acknowledging human potential and human relationships (since the 1920s)

Between 1927 and 1932, a number of scientific management experiments were conducted at a company called Western Electric under the leadership of Professor Elton Mayo, of Harvard Business School. This began as a routine experiment to study the link between output and physical and technical variables such as lighting levels. A group of women were taken off the factory floor and assembled telephone relays, around a table and in isolation from the other factory workers. Various changes were made to their working conditions, such as more frequent breaks and variable work hours. To the great surprise of the researchers, productivity improved by as much as 38% as a result of each change to working conditions, regardless of the variable being tested. Interestingly, however, when everything reverted to the starting point, productivity remained high. The conclusion drawn was that the group of women had grown to like and trust each other and the researchers, so that regardless of the variables, it was better human relations that had transformed the situation. The women in the study felt unusually well respected as they were interviewed by the researchers, and close attention was paid to their responses. They also felt more in control of their working environment. Mayo concluded that people don't behave like machines. Today, management theorists refer to this phenomenon as the Hawthorne effect, named after the location where these studies were first conducted.

The irony was that these results were accidental, but they changed business practices profoundly and underlie the rationale of HR departments to this day, marking a swing in business management studies from a science perspective to the humanities and arts.

4. Strategic planning envisioned in terms of 'the art of war' (prominent 1960–1980)

By the 1970s, America was experiencing major competitive pressures, mostly from Japan, which was making major inroads into the world market. The Cold War was also an ongoing challenge for the Americans, and this had an impact on business scholarship. America needed to show its superiority to the Soviet Union and prove that it could 'deliver the goods' better than its rival. The imperative was to win. Economic development was war by another means, and strategy was the method by which leaders marshalled and engaged their followers and which would lead the USA to victory. If everyone knew the objective, they could come up with clever initiatives designed to get there.

The notion that economic rivalry was in some respects a military-style engagement grew in popularity. Just as Alexander the Great and his *strategos* (commanders of a phalanx) had conquered most of the known world in ancient times, modern American managers, having been scientists and developers of potential, now came to be seen as commanders-in-chief and bold generals in a modern-day battle to conquer the world.

5. Putting the customer first (since the 1980s)

The next stage of business scholarship had to do with how Americans came to see and interact with consumer goods. In the late 1940s, the American consumer considered 'made in Japan' a warning. By the late 1980s, it had become a mark of high quality, not only in the final product, but also in ways of working. When a Japanese joint-venture partner took over the Fremont plant in California from General Motors, it went from being the worst plant in that company to the best within six months. In a period of over 30 years, there had been a quality revolution in Japan, and Japanese cars had become so popular that President Ronald Reagan put a restrictive quota on their import. The focus of management theories now shifted towards the customer. The idea was to get really close to the customer and stay there. The relationship manager became the norm. Tom Peters, who had celebrated such closeness in the pages of *In Search of Excellence* (1982), now promoted this with increasingly evangelical fervour in a series of publications. Customers would be the first to warn you if things were not up to standard. By the time profits sank, it might be too late.

The introduction of numerically controlled machine tools into factories meant that short production runs could be instituted at much lower cost, since settings could be changed in seconds rather than hours. This ushered in the age of mass customization, in which quite finely segmented markets could be served at affordable cost. It became all the more important to know just what the customer wanted and get this to him/her. Six Sigma quality circles became the norm, with defects falling to one in a million.

6. Globalism and diversity (gained prominence from the late 1980s onwards)

By the late 1980s, Soviet Communism was crumbling. The Berlin Wall was breached and dismantled by thousands of hands in November 1989. Germany was united a year later. Now, America had no equal in power in the whole world and the process of globalizing American hegemony could begin. It was said to be 'the end of history'. Free-market liberal democracy had triumphed over communism.

Because of globalization, several multinational corporations were larger and certainly richer than many nations. Privatization spread across the world, spurred on by American and British financial institutions. International organizations like the IMF, the World Bank and the World Trade Organization were safely in American hands, and bailed out nations on condition that they cut back state expenditure on social projects and embrace free-market ideologies.

In business circles, there were two reactions to these events. There were those who sought to impose American practices on the whole world and spread its business scholarship – purely on the grounds that they had won the argument with communism. But there was a second school of thought which has better survived recent crises. This was that there are many paths to economic development, that countries excel in the supply of what those national cultures most value and that we must bridge the diversity between nations, cultures, levels of development and belief systems. The best leader was an internationalist, part diplomat, part

INTRODUCTION

translator, part intermediary, part negotiator. He or she needed cross-cultural competence, thinking globally while acting locally.

7. “Greed is good” (very prominent from the 1980s until 2007)

Management is much influenced by political developments. The fall of the Soviet Union released a wave of euphoria. At long last, ‘real capitalism’, without let or hindrance, could take over the world. It was no longer necessary to tolerate trade unions or gross government interference in mixed economies. The 1980s saw the culmination of the Thatcher-Reagan influence. The theory was that the economy was lagging in the Seventies because of the lack of ‘supply side’ investment. The owners of capital must be set free, privatization must pervade the globe.

What then occurred was a very sharp rise in the salaries of chief executive officers, who were also given share options. This was done to ensure that the leader was on the side of the shareholders and benefited in the same manner from dividends or a rise in the share price. The phrase ‘greed is good’ is taken from the speech that fictional character Gordon Gekko delivered in the movie *Wall Street* to explain why he wanted to take over an inefficient company:

‘The point is, ladies and gentleman, that “greed” – for lack of a better word – is good. Greed is right. Greed works. Greed clarifies, cuts through, and captures the essence of the evolutionary spirit. Greed, in all of its forms – greed for life, for money, for love, knowledge – has marked the upward surge of mankind.’

This quote, as well as Gekko’s character in the movie, became a symbol of the business spirit at the end of the twentieth century.

The whole purpose of business was to make money. The bottom line was the ultimate embodiment of all other concerns. Well-rewarded shareholders would invest more, spend more on contracts and the West would recover its position in the world. In the meantime, ‘light-touch’ regulation would remove the remaining obstacles to a rebirth of economic freedom. It all came to grief in the financial crash of 2007 and the ensuing recession.

However, none of this detracts from the importance of managing an economy for the results this achieves. Financial performance is an important result, but by no means the only one. There are ‘results’ for all parties to an enterprise. The idea was that benefits to shareholders would assure benefits to everyone else. The flaw here is that shareholders may find ways of siphoning off more than their fair share. In this case, we need to compare what various parties receive and try to make sure that their relative contributions are matched by what they gain. In any event, we cannot afford to ignore the results of our economic activities. To examine this feedback is absolutely vital. Pragmatism is essential.

8. 3Ps: People, Planet, Profit (since the 1970s, but dominating since the twenty-first century)

The latest challenge to leaders and business scholarship on leadership is perhaps the broadest, the most comprehensive yet. Leaders face the challenge of leaving the environment more fruitful and diverse than they found it. It's becoming imperative to understand the systems and life cycles which replenish the earth's resources and leave a legacy to future generations. Increasingly, there is demand for a new kind of leadership that can deal with a wide variety of stakeholders, managing the triple bottom line: harmonizing the interests of people, the planet and corporate profit. In order to do this, leaders must innovate – not just new products, but new industrial processes; in new factories, with new machines, new business and production models in which every material/component is utilized in an ever-functional cycle, rather than using up finite resources, in order to be attentive to the needs of all parties.

A comprehensive sequential excellence framework

It should go without saying that the business fashions of the past, as described above, also live on in management thinking today. Characters like Steve Jobs, Richard Branson and Bill Gates are good imitations of the great and innovative entrepreneurs of the early twentieth century. Scientific management lives on in mechanical approaches like re-engineering and lean manufacturing and, arguably, in the aspirations behind measuring the world through big data. The human relations movement lives on in HR departments, in programmes on employee engagement and in developing new ways of working. The capacity to develop and communicate a corporate strategy has become a necessity for every leader to ensure support from stakeholders. Customer focus is found in modern treatises on co-creation with customers, in supply-chain management that becomes demand-driven and in the increased information exchange with customers. As the world becomes ever more interconnected, dealing with diversity – young and old, male and female, Eastern and Western, religious or not, individualistic or communal, highly or poorly educated – is increasingly seen as a necessary source of strength, rather than an exotic challenge. Finally, the notion that sustainability is a fundamental concept for the well-being of humanity is being widely accepted among leaders in government and in business.

In what follows, we intend to include all the changing fashions we have described in an 'excellence framework' or cycle, whereby the models we have selected are addressed in eight areas critical to business leaders of today. Our excellence framework suggests a necessary sequence of activities. Every fashion was relevant, but was not enough on its own, and might even spell disaster if obsessed over. All elements are needed and must work in harmony and reconciliation. No element of the cycle is less vital than another.

INTRODUCTION

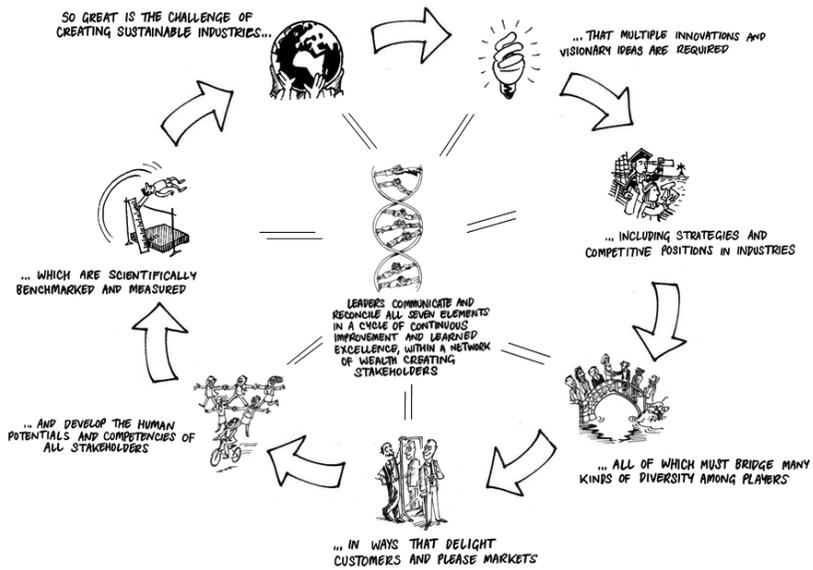


Figure 0.1 The excellence framework

We can see from the excellence framework that there are eight fashions in management science that are restructured in seven elements, which are bound and guided by an eighth element :

Business fashions	has become	Parts of the excellence framework that focus on models of	
Fashion 1 – the creative power of entrepreneurship		Part 2 – innovation and entrepreneurship	
Fashion 2 – focusing on results through scientific management		Part 7 – benchmarking and results	

100+ MANAGEMENT MODELS

Fashion 3 – discovering human potential as crucial for success	has become	Part 6 – human resource management	
Fashion 4 – the CEO as strategist of a large organization	becomes	Part 3 – strategy	
Fashion 5 – the customer is king and quality is crucial	becomes	Part 5 – customers	
Fashion 6 – the rise of internationalization and globalization	has become	Part 4 – diversity of cultures	
Fashion 7 – leaders functioning on behalf of shareholders	Is combined with	Part 7 – benchmarking and results	
Fashion 8 – people, planet, profit	has become	Part 1 – sustainability	

The reason for altering the historical sequence is that some tasks must logically precede others. For example, until the full challenge of our deteriorating environment is acknowledged, the necessary innovation may not be forthcoming. Until the strategy has been implemented, there is nothing to measure scientifically. Until delighted customers buy more, there are no profits for shareholders to receive.

Finally, if we look at the centre of our excellence framework, we find the characteristics that pattern the whole. This is shaped by leadership and communication, an eighth element, and the theories and models that have been developed around these themes. All elements have a series of pressing values that must be reconciled to bring about a process of continuous improvement in results that include nature's natural cycles. This entire process is learned through interactions with other stakeholders, and every element in the cycle must be balanced, aligned and synergized with every other element in a series of dilemmas.

Conceptual models: handle with care

What do the 'fashions' in business scholarship mean for the models they produce? Good theories can help to solve real-life problems. For organizations, theories can contribute to answering questions such as: How can we improve working together? How do we merge sustainability with profitability? What leadership and communication do we need? Scientific theory strives to make the appropriate answers objective, standardized and generalizable. The arguments behind these answers are compiled in theories. These theories are made digestible through conceptual models, offering a general idea (a concept) in a simplified form of reality (a model). Conceptual models typically suggest how a selection of variables define the result in a certain field of management. They thereby facilitate understanding and test or apply their underlying theory.

Theories on organizational issues come from social science. This umbrella term comprises academic disciplines like economics, psychology, sociology, communication, business administration and other schools of thought that try to explain and predict aspects of human behaviour. There is high demand for theories and conceptual models that help to improve individual or organizational effectiveness. Which manager or company doesn't want to be successful, preferably in only a few steps? This high demand for roadmaps to improvement breeds a large supply of authors and gurus who suggest that they know at least some of the secrets of success, be it for individuals, organizations or even nations. However, it is clear that there is ample room for improvement if social science is to be effective, or even just to avoid disaster. Crisis and failure are not yet eliminated in modern society. Theories or models can give guidance, but they don't give guarantees. It is always wise to exercise caution in using models for solving problems, especially when the model suggests a mathematical precision that characterizes harder sciences, particularly physics – a phenomenon that is known as 'physics envy'. In spite of the promising character of many management theories, human nature is still too complex, diverse and dynamic to completely capture in theories and models. It is not only very difficult to model how individual people think and behave, it is also very complicated to understand our relationship with the environment. All theories and models in this book arguably work out differently in different cultures and political systems. This is not a reason to avoid theories and models but rather a reminder that we need to understand their limitations and invest in research and testing to make promising theories more robust.

Evidence, relevance, guidance

Authors of management theory, scientific or not, come in a wide variety, and they do not necessarily agree with each other. So which theories should we follow? We selected the models in our book using the following criteria and questions:

1. **Evidence:** Is the conceptual model supported by convincing empirical proof, or is it just a compelling idea? We can summarize the characteristics of the scientific approach from the 3Rs perspective: results are *reliable*, *reproducible* (you get the same result each time for a given set of conditions) and often come from *reductionism* (reduce the system to a manageable subset e.g. keep the temperature constant and see how pressure changes with volume). Later, more research can bring a fourth R – *refute*, where new evidence reveals that the earlier theory is refuted and needs to be replaced by a newer theory. This is the scientific approach, and scientists welcome new research and developments that challenge existing knowledge.
2. **Relevance:** Does the conceptual model touch upon the global challenges of today and tomorrow? Is the model valid, meaning that the problem is worth solving, the model fits the problem and the approach is generalizable? Is the model open enough for use and improvement?
3. **Guidance:** Does the conceptual model have substantial explanatory or predictive power? To what extent is the model's scope comprehensive and inclusive? Does the model pass the test of parsimony, meaning that it provides logical simplicity, thereby strengthening its usability?

The scientific method works well for deterministic (so-called hard, closed) systems. But organizations contain people, who are open, adaptive, probabilistic 'systems' and don't follow a hard-science paradigm, but instead come within the umbrella of social science. Giving one person a pay rise affects them differently than it might somebody else. What worked last year doesn't necessarily work this year. When new research evidence reveals new insights, it builds upon knowledge with new management theories rather than simply replacing extant theory.

Models can be very popular and widely used without having substantial evidence, relevance or guidance. A well-known example is Abraham Maslow's 'hierarchy of needs' (see also Barrett's model, discussed in Part 1), which is typically represented in the form of a pyramid that contains five progressive steps. But where is the evidence? Maslow never even used a pyramid to represent his ideas. And his notion of a hierarchy originally came with considerable caution: 'if I may assign arbitrary figures for the sake of illustration, it is as if the average citizen is satisfied perhaps 85% in his physiological needs, 70% in his safety needs, 50% in his love needs, 40% in his self-esteem needs and 10% in his self-actualization needs' (Maslow, 1943, pp. 388–389). Apparently, people just started framing this hierarchy by using the popular shape of a pyramid as though the Maslow had presented it like that.

INTRODUCTION

Maslow himself lamented the widespread use of his 'model' and its lack of proper testing, as he commented in 1962: 'My motivation theory was published 20 years ago, and in all that time nobody repeated it, or tested it, or really analysed it or criticized it. They just used it, swallowed it whole with only the most minor modifications' (Lowry, 1979). Apart from the meagre evidence, the relevance and guidance of this model can and should be questioned. Obviously, the model greatly appeals to common sense, but the question remains as to which problems it can actually solve and which steps and mechanisms are to be considered in using it.

Critiquing theories or models like this belongs to the tasks of applied science. In our selection of conceptual models, we identified the strengths and weaknesses of the evidence, relevance and guidance of each model to the best of our knowledge. This work is never complete, and we look forward to working on continuous improvement of our selection and assessment.

Models that support implementation

The conceptual models, described in the first eight sections, were chosen because of their explanatory and predictive power. These models are best used to understand management challenges and define solutions. In addition, we selected a series of supporting or implementation models, in section nine, that primarily order and frame reality or provide a roadmap for improvement, without detailed explanations as to how relevant variables interact. These models are also known as taxonomies: they mainly help to classify information.

The models in the implementation chapter are to be used to support the conceptual models in two main ways. Firstly, they can be used in selecting and categorizing relevant information, typically as a checklist. An example is the well-known SWOT model (see Part 9), suggesting that contrasting the (internal) organizational *strengths* and *weaknesses* with the (external) *opportunities* and *threats* helps to identify and prioritize challenges. The second way implementation models can help is to offer practical and robust methods to get things moving in the chosen direction, typically in the form of an action plan. One example is the Scrum (see Part 9), a planning method for IT or communication projects. It is not a conceptual model of how people learn or innovate, but rather a tested and practical method of effectively working together.

The difference between conceptual models and models for implementation is not always clear. Typically, conceptual models have more explanatory and predictive power and are tested with academic rigour. By contrast, models for implementation are less complex; they are geared more towards practical use and are less concerned about academic rigour. Some models can serve in both categories; in this book, we have classified the models according to how we think they will prove most useful.

Applying models in practice

Not only are business models influenced by the fashions of scholarship, but also by the dominant (cultural) perspective or mindset of the originators and users. For the most part, business scholarship has been developed in an academic environment that is looking for the single answer that can be applied broadly with the same results. However, most of the genuinely important issues are paradoxical. The problems arising from paradox are complex and seem to keep on recurring. If and when we solve these tensions, large gains become possible – the ‘pain’ turns to ‘gain’. This doesn’t mean that management theories and models are invalid or not useful because results are not always reproducible. Rather, we have to think of a different approach when learning about management models and how to apply them.

Because of the elusive nature of organizations, being complex adaptive systems, various management theories and conceptual models point in different, sometimes conflicting directions. Choosing a direction and a supporting model inevitably raises dilemmas and paradoxes, containing values which, at first glance, are opposed to one another and seem difficult, if not impossible, to combine. To answer the question of which models are to be chosen and how they are to be used, we can follow a paradigm of structuring and resolving these challenges using ‘dilemma thinking’. This will enable us not just to compare models, with a view to acceptance or rejection, but also to combine the different and sometimes opposing views of the various models so we get the best from each. Seeing dilemmas is a form of critical thinking, contrasting the real with the ideal. It assumes that everything is not as good as it could be and that improvements or even radical changes are needed.

Dilemmas

The word ‘dilemma’ originates from the Greek, ‘di-lemma’ which literally means ‘two propositions’. We define a dilemma as: ‘two propositions in apparent conflict’. In other words: a dilemma describes a situation whereby one has to choose between two good or desirable options. For instance: we need flexibility and we also need consistency. So a dilemma describes the tension that is created due to conflicting demands.

What is *not* a dilemma? Here are some business examples:

- A description of a current and ideal state: ‘We have good communication tools, but we need to use them better.’
- An either/or option: ‘Should we start hiring new employees now or wait till next year?’
- A complaint: ‘We make good strategic plans, but due to lack of leadership, we are not able to follow them through.’

How are we to formulate a dilemma? First: describe the dilemma by using the words: ‘On the one hand... / and on the other hand...’ Second: describe positive elements of both sides of

INTRODUCTION

the dilemma (e.g. individual versus group; objective versus subjective; logic versus creativity; analytical versus intuitive; formal versus informal; rules versus exceptions; and so on).

In general, most managers and people are afraid of dilemmas, which are more difficult to solve than problems with a clear 'yes' or 'no' response. Dilemmas necessarily entail a respect and valuation of both sides of the issue and demand more creative and innovative solutions. This in turn requires a closer awareness of and attention to the values underlying different business models and the contexts in which they are used.

Values are differences, not things

'What are values?' is a most profound question. Because we live in a material society, most people get the answer wrong. Many think of values as being things like a pocket full of money or jewels. Money is equated with strength and competitiveness: the more money you have, the more possessions, the bigger your bonus, the more you eat, the stronger your country, the more competitive you are, the higher national GDP, the better. However, there is no evidence in favour of these propositions.

If values are not things, then what are they?

Another way of seeing values is as differences on a mental continuum. We are by turns strong and vulnerable, selfless and self-seeking, courageous and cautious, loyal and dissenting, vigilant and trusting, and so on. We cannot even define values unless we know with what an attribute is being compared. Courage is opposed to caution in the sense that you cannot take risks and not take risks in the self-same moment of time. You must choose. Indeed, we do not know what the speaker means by courage unless we also know the contrast he or she has in mind. To say we must be courageous, not cowardly, suggests that the very highest levels of risk-taking are now needed. To say we must be cautious, not reckless, suggests the very highest levels of risk avoidance. Understanding what is being contrasted is vital to sense-making. We are now in a position to define virtue, and this is important because generations of social scientists have claimed to be 'value free', but can we be? Philosophers of science have told us that courage means 'this person takes risks – presumably a good thing'. Caution means 'this person avoids risks – presumably a good thing'. Why not avoid such 'exclamations of preference', which have no testable meaning, and stick to the description of risk-taking?

Recognizing and understanding values in relation to each other

Courage is true courage when it turns out in the long run to have been the most cautious action possible. Caution is true caution when it turns out to have served courage by 'keeping our powder dry' and making later courage possible and effective. Consider a very difficult dilemma: attempting to save someone from drowning, as shown in Figure 0.2 (opposite). Roughly one third of all persons attempting such rescues drown themselves, so that two persons, not one, die. What is required to effect a rescue is enough courage to enter the water and enough caution not to let him or her drown you too by hugging you so tightly you cannot move.

Life-saving drill teaches you how to break the frantic clutches to your body that could kill you both. Indeed, those taught to save lives are counselled to be very cautious. The lesson is *first row* (up to the drowning person) then *throw* (him/her a life belt) then *go* into the water only as a very last resort. In other words, let your caution precede your courage, but not impede it.

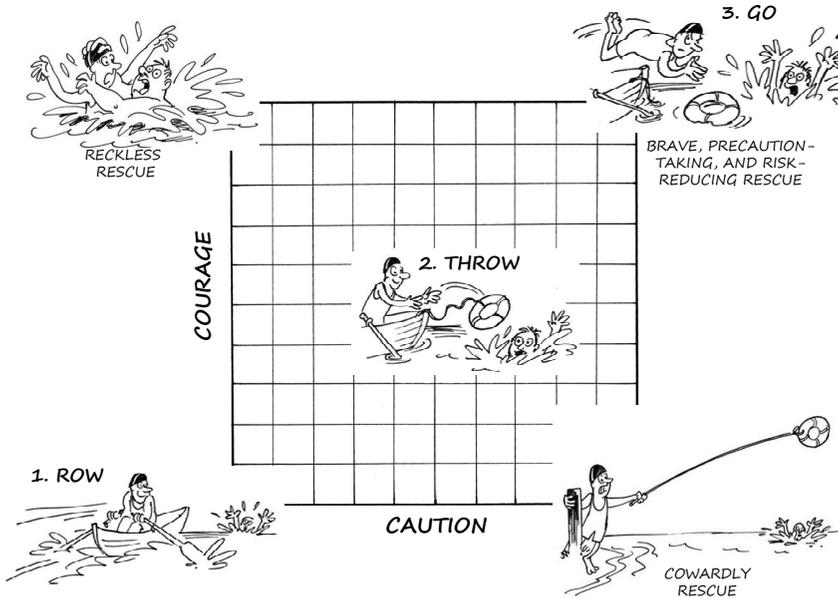


Figure 0.2 Caution versus courage

We are now in a better position to understand negative value judgements. What cowardice means is allowing caution to overcome courage completely. What recklessness means is allowing courage to overcome caution completely. Reckless and cowardly conduct both lead you to stick to one end of a value dimension and stay there, not moving between opposed solutions. A good definition of a courageous soldier is someone who wants to go home and wants the people he is protecting to stay safe. The reason he may lead a heroic charge is because, in the end, this is the safest course. Perhaps, if he does not, the enemy will charge him instead. It was Pericles, a prominent and influential Greek statesman, orator and general of Athens during the Golden Age, who defined true courage as one who knows how sweet life is and how tenaciously it must be defended, but goes out to face peril nonetheless.

Egoism versus altruism

Or consider the reconciliation between egoism and altruism. You are travelling on a plane with a small child. The cabin depressurizes and oxygen masks fall from the ceiling. The airline begs you to put the mask to your own face first, before helping your child, or to put egoism before altruism. The point is that if the adults pass out and the children start screaming, then

INTRODUCTION

evacuating the plane will not be easy. Altruism and child rescue are vital, but you cannot do this if you are not breathing yourself. Only the strong can help the weak. In the case of our heroic soldier, it was the other way around. Altruism was put before egoism. He wanted to survive, but might not.

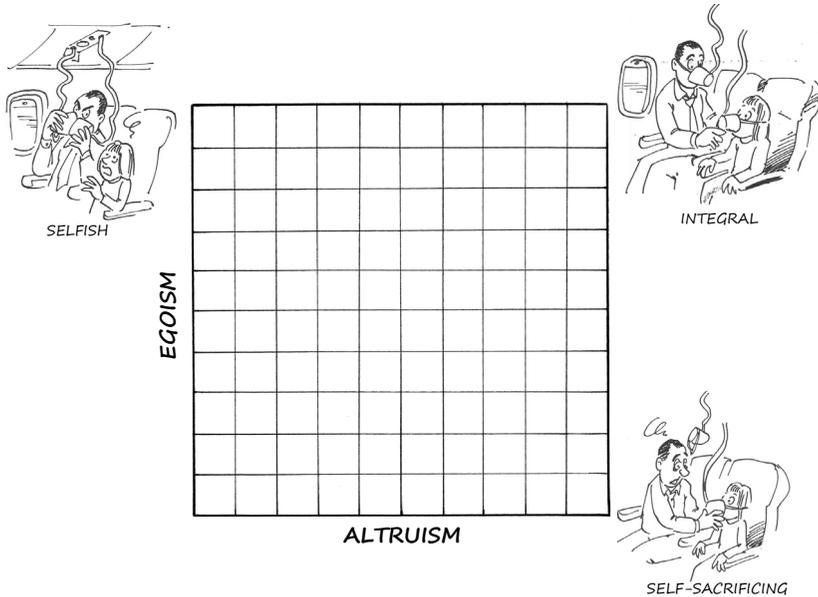


Figure 0.3 Egoism versus altruism

Note that these sequences are *tactical*, not moral. Saving the child may be more important to you than saving yourself, but only a breathing adult can do the saving. Caution on the aeroplane comes before courage *in time*, not necessarily in importance.

Throughout this book, we will encounter similar juxtapositions of values, or dilemmas.

The important thing about values is not to lose sight of either side of the differences, but to keep them connected. Focusing on only one side leads to a pathology. When both sides are integrated or reconciled, they strengthen each other.

Reconciling dilemmas that come out of value tensions

What does this mindset look like in business? Take the example of an organization when it is an *error-correcting system which seeks to learn and to discover*. It corrects the faults of individuals, of teams and groups, and of organizations, thereby helping to steer them in chosen directions.

Often within organizations, we begin with the all-too-familiar vision of a tug-of-war between right and wrong, error and correction, the bad guys versus the good guys. This is going to get us nowhere and condemns us to strife. Admittedly, there are people who err repeatedly and deliberately, and these we must contain and if necessary, imprison.

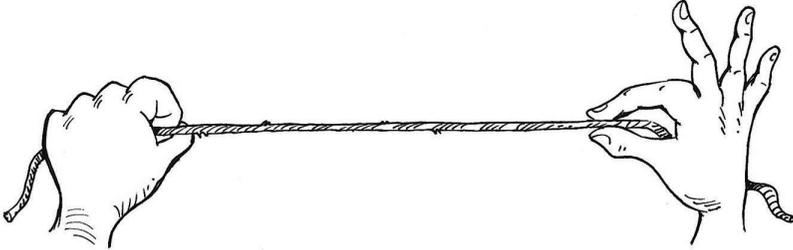


Figure 0.4 The tug-of-war between error and correction

But for those whose errors are inadvertent and are capable of learning better, we need to *create a culture space* in which improvement can occur. In this case, our next step is to turn our piece of rope into a continuous loop by tying the ends together. This will enable us to err and correct by turns.

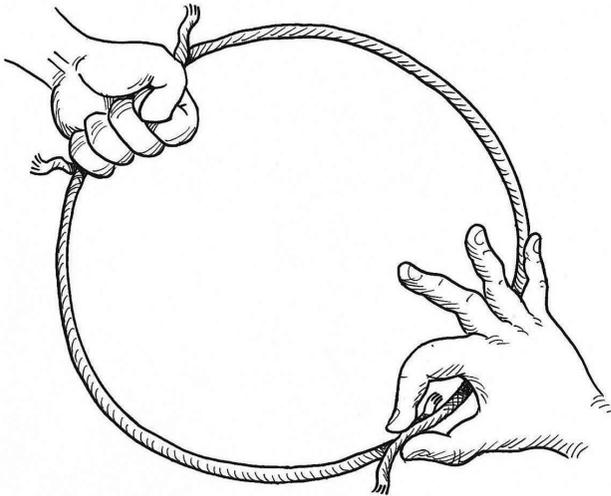


Figure 0.5 Create a learning loop by joining error to correction

But beware of punishing an individual. You will learn far less than you would otherwise. Simply blaming the person nearest to the trouble will obscure the system's faults. You need to ask why it was not anticipated, why safeguards were not in place, why it was not caught earlier and whether the erring person had been properly trained and instructed.

INTRODUCTION

The road to improvement can be modelled like a helix, with each error corrected and one improvement building on the next. A helix is the synthesis between a line and a circle.

If the company is at all innovative, then the errors will be far more frequent. Thomas Edison famously failed more than a thousand times, but saw each error as a learning experience.

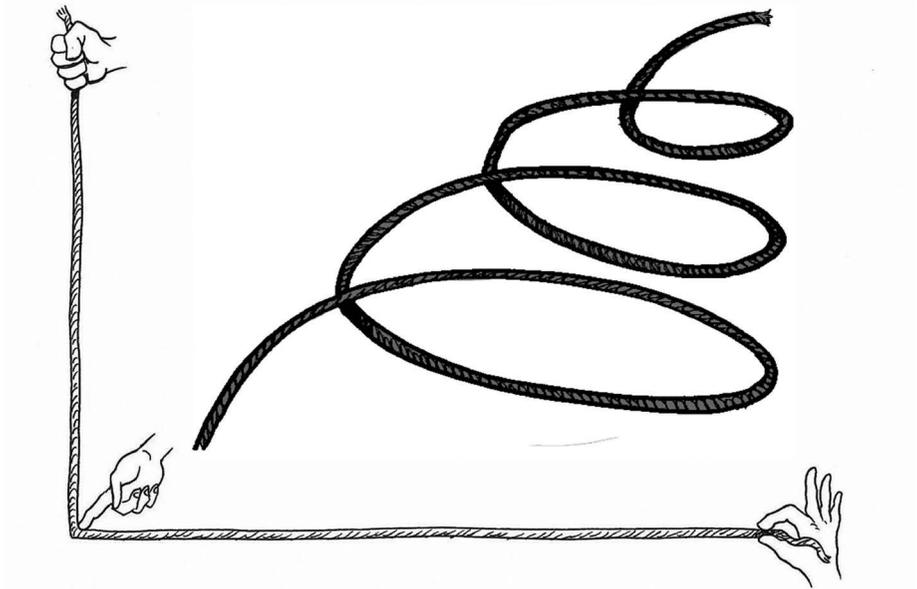


Figure 0.6 The helix as a synthesis between line and circle, showing continuous improvement

This, in summary, is how an organization improves its people, its teams and its whole ethos and develops them over time. We reflect on our practice and improve.

Examples of reconciled values

In our daily lives, perhaps the most obvious example of reconciled values is the humble stop light or traffic signal. The highly contrasting colours of red and green have been borrowed from the far ends of the colour spectrum to make them as different as possible, with yellow in the middle. Note, and this is important, red by itself or green by itself are not just useless, but dangerous. If one light were to fail, accidents would multiply. What makes for virtue and effectiveness is the ceaseless movement between contrasts. What controls traffic is the knowledge that you have but to wait and you will soon be allowed to proceed.

A final metaphor to illustrate the reconciliation of dilemmas is given by the image of a frisbee, which spins as you throw it. Figure 0.7 (opposite) is both a frisbee and a dual-axis diagram. The frisbee is a metaphor for the circular path taken between the two axes, with errors top left and bottom right. The frisbee must be thrown to the top right-hand corner on an even keel. Profits and the environment must be balanced.

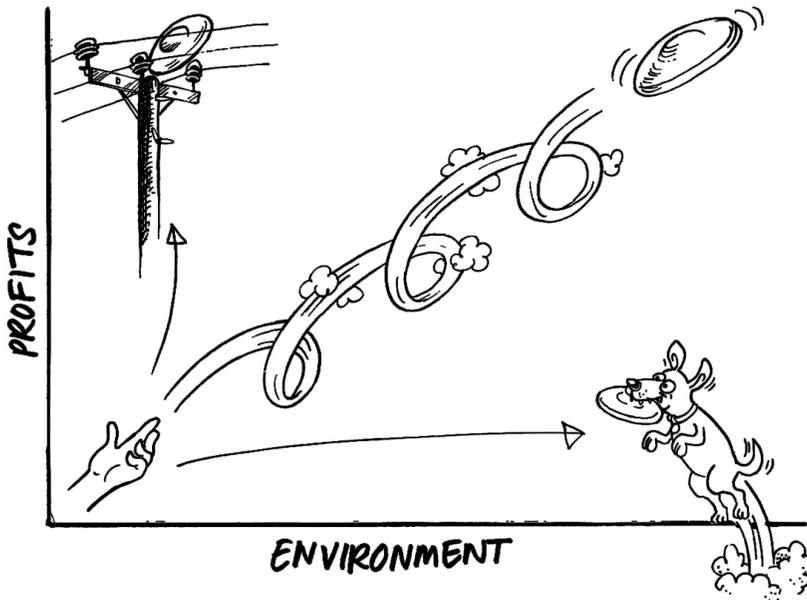


Figure 0.7 There are always two opposite ways of messing up

There are always two opposite ways of messing up; in this case, insisting that profits override every other consideration at top left and insisting that the environment is a divine legacy against which industry plots with devilish cunning at bottom right.

In the reflection sections at the end of parts 1–8, we look at a range of models to demonstrate how this kind of circular thinking can be applied or understood. We have selected models that are considered classics in their fields, some that are practical in their approach, and a few that we consider to offer a conceptual window to the future. Models were also selected according to their potential to provide a more in-depth understanding of the appropriate segment. For each of the models, we provide an illustration to help visualize the ideas of thinking in cycles, dilemmas and reconciliations.

The dual-axis diagram (Figure 0.7) helps to highlight the elements or values that are in tension, and their extreme positions if taken too far.

INTRODUCTION

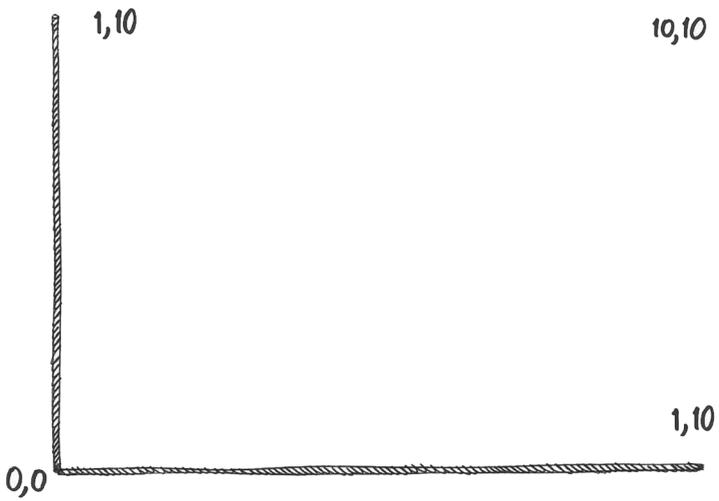


Figure 0.8 Axis

The 10x10 grid allows us to measure both axes and to plot different positions to show where an individual or organization might be.

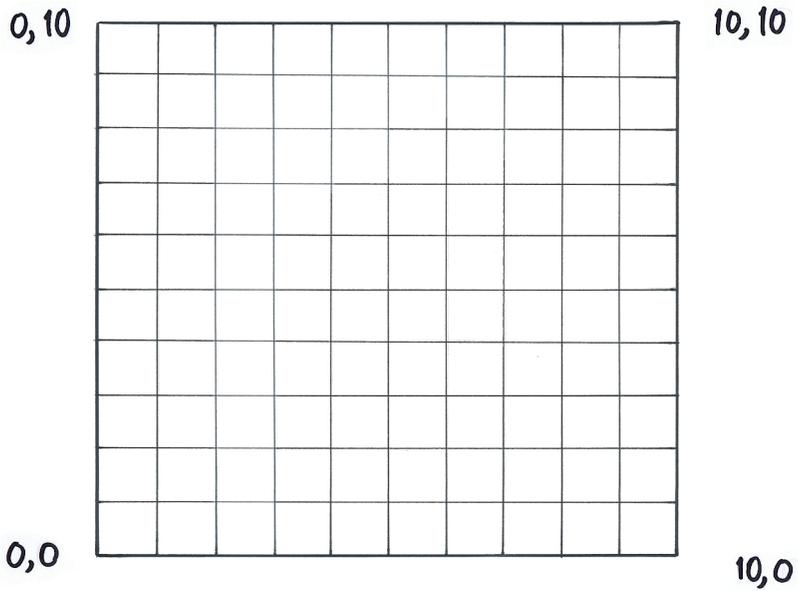


Figure 0.9 10x10 grid

The circular frisbee reminds us how different perspectives, when connected, can build on and strengthen each other; it also reminds us that you can enter circling ideas from any position in the cycle.

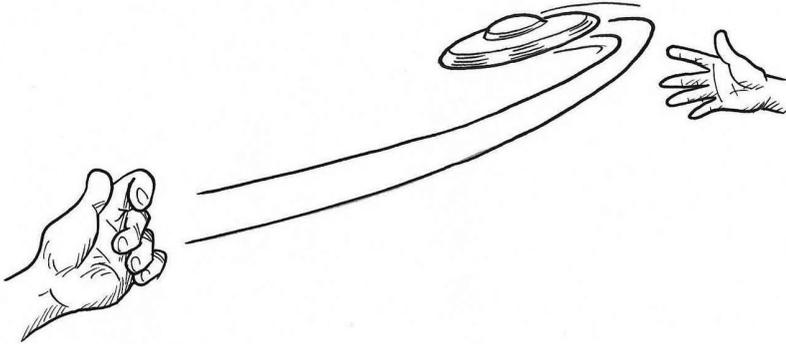


Figure 0.10 Cycling frisbee

Reconciling management theories

We believe that rather than looking at the world and all its aspects in isolation or extremes, the models of business management would be better served if we recognized that models are an attempt to simplify parts of reality and therefore, necessarily, are limited in their explanation of the truth, as exemplified by the fable of the blind men and the elephant.

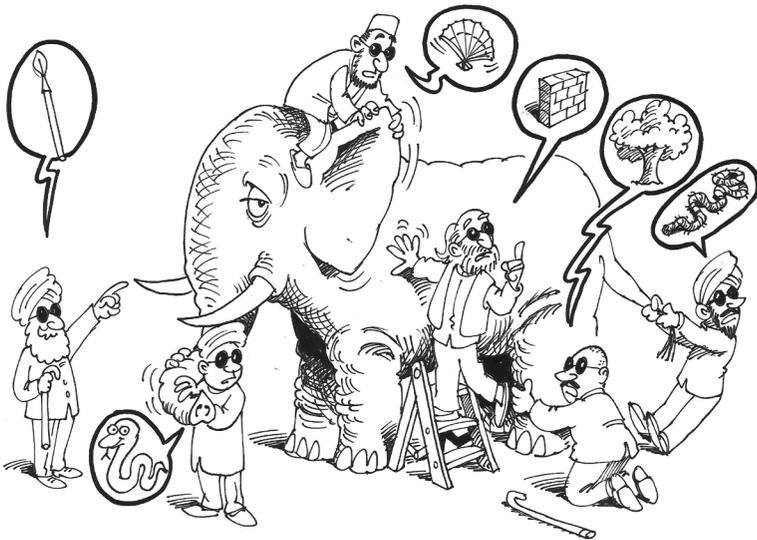


Figure 0.11 The blind men and the elephant

INTRODUCTION

The blind men and the elephant

It was six men of Indostan
To learning much inclined,
Who went to see the elephant (Though all of them were blind),
That each by observation
Might satisfy his mind.

The *First* approached the elephant,
And happening to fall
Against his broad and sturdy side
At once began to bawl:
'God bless me! but the elephant
Is very like a WALL!'

The *Second*, feeling of the tusk,
Cried, 'Ho, what have we here,
So very round and smooth and sharp
To me 'tis mighty clear
This wonder of an elephant
Is very like a SPEAR!'

The *Third* approached the animal,
And happening to take
The squirming trunk within his hands,
Thus boldly up and spake:
'I see,' quoth he, 'the elephant
Is very like a SNAKE!'

The *Fourth* reached out an eager hand,
And felt about the knee,
'What most this wondrous beast is like
Is mighty plain,' quoth he:
'Tis clear enough the elephant
Is very like a TREE!'

The *Fifth*, who chanced to touch the ear,
Said 'E'en the blindest man
Can tell what this resembles most;
Deny the fact who can,
This marvel of an elephant
Is very like a FAN!'

The *Sixth* no sooner had begun
About the beast to grope,

Than seizing on the swinging tail
 That fell within his scope,
 'I see,' quoth he, 'the elephant
 Is very like a ROPE!'

And so these men of Indostan
 Disputed loud and long,
 Each in his own opinion
 Exceeding stiff and strong,
 Though each was partly in the right,
 And all were in the wrong!

John Godfrey Saxe (1816–1887)

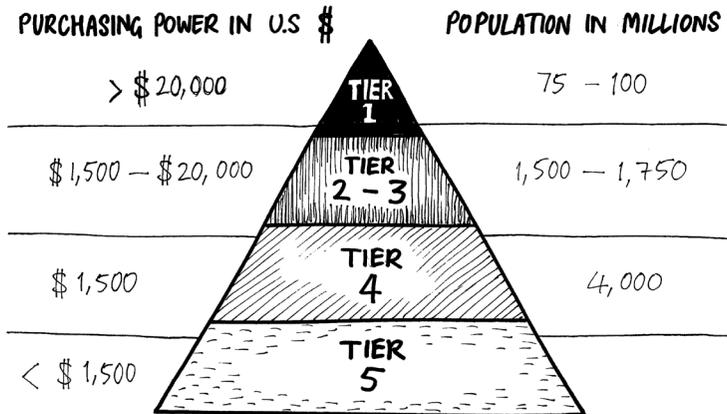
While models are created to simplify, this tale should remind us that everything is more complex, variegated and differentiated than it seems to be. We know in part, and for the larger truth, we must keep on groping, must keep sharing other people's mental models of the elusive shapes we are searching for. Such people may be every bit as right as we are. Note the insights of these verses. Everyone thinks the elephant is either an inanimate object or a simpler organism. Everyone is reductive, confusing a part-truth with the whole truth. Each man denies the validity of the others' perceptions and takes an adversarial stance, assuming he alone is correct.

The lesson of this poem, based on an Indian fable, is one of perspective or point of view. We have a persistent habit of reducing everything to its supposed fundamentals. We assume the truth is simple, a seed at the centre of everything which is packed with information. Even in cases where this is true, the seed is no more important than the fully grown creature or organism we are studying. The idea that we learn only from analysis is cultural bias. We also learn from synthesis, from seeing the role which the various parts of the elephant play in its survival and proper functioning.

The tale of the blind men and the elephant forms a clever satire on the current state of academia, in which we reduce everything into facts, objects and atoms, fail to see the big picture and blame each other. The big picture can be derived from assembling popular models, which is what we intend to do, while a dirty great pile of bricks will never make a house in the absence of an architect and someone looking for meaning.

The excellence model, which structures this book, similarly looks at the eight perspectives on management theory as interdependent. They are true in their wholeness. In their parts, they can be positively dangerous, like a spear or a snake. Most academics come from Western cultures, that are individualistic, competitive, specific and analytical. As academics, we have an inherent capacity to take things to pieces and live amongst the rubble. In this book, we intend to break with this habit and try to see things as a whole, interdependent and inter-related.

MODEL 1: The Bottom of the Pyramid, C.K. Prahalad (2002)



PROBLEM STATEMENT

How can one create wealth by doing business with the 4 billion people at the bottom of the financial pyramid?

ESSENCE

In economics, the Bottom of the Pyramid (BoP) is the largest but poorest socio-economic group, comprising around four billion people who live on less than a few dollars per day. Conventional logic holds that there is little business to be done with this 'market segment'. Together with academics Stuart Hart and Allen Hammond, C.K. Prahalad turns this logic around by analysing how the total buying power of this group could be stimulated, as long as there is access to vital resources such as money, telecommunications and energy.

The simple observation is that, because there is much untapped purchasing power at the bottom of the pyramid, private companies can make significant profits by selling to the poor. Simultaneously, by selling to the poor, private companies can bring prosperity to the poor, and thus can help eradicate poverty. Prahalad suggests that large multinational companies (MNCs) should play the leading role in this process, and find both glory and fortune at the bottom of the pyramid. Prahalad suggests that there is much eagerness to do business in this sector – as long as traditional barriers can be modified.

HOW TO USE THE MODEL

To enable poor people to use their buying power, Prahalad suggests making use of the following twelve building blocks. Solutions must:

1. Be low-priced;
2. Merge old and new technology;
3. Be scalable and transportable across countries, cultures and languages;
4. Be eco-friendly;
5. Put functionality above form;
6. Be based on innovative processes;
7. Use deskilled work;
8. Educate customers;
9. Work in hostile environments;
10. Be flexible with interfaces;
11. Be available for the highly dispersed rural market as well as highly dense urban markets;
12. Be fit for rapid evolution.

RESULTS

The idea behind BoP has enjoyed global acceptance since its presentation in 2002. An earlier example of how doing business with the poor can pay off for all stakeholders is given by the success story of Bangladeshi banker, economist and Nobel Peace Prize recipient Muhammad Yunus, who developed the concepts of microcredit and microfinance, small loans given to entrepreneurs too poor to qualify for traditional bank loans. Other examples include the limited success of the Tata Nano car and the success of Hindustan Lever Ltd., one of Unilever's largest subsidiaries.

COMMENTS

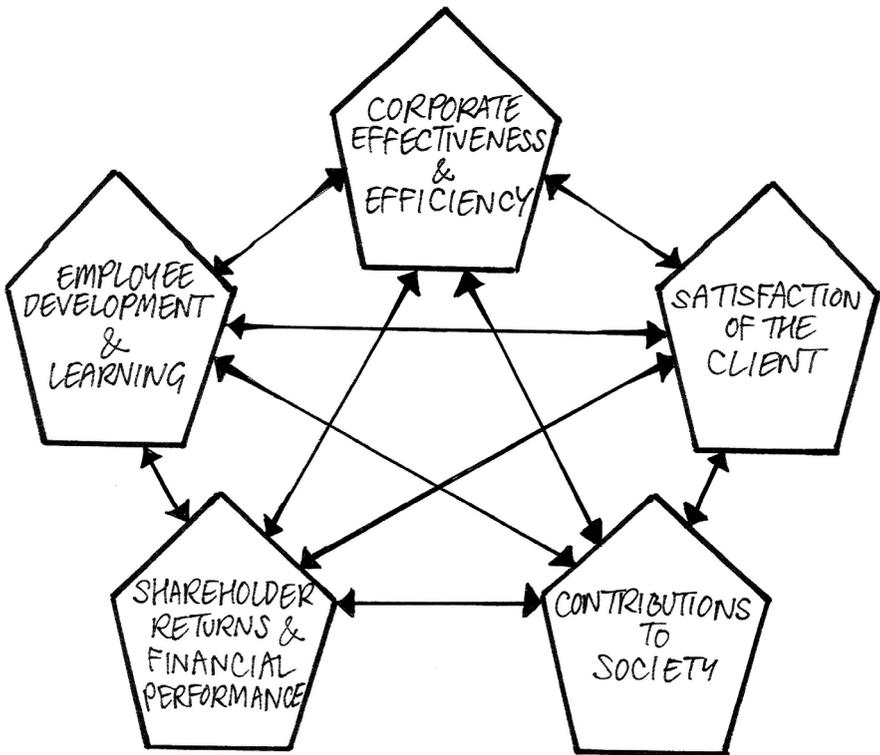
Critics have claimed that the BoP proposition might be too good to be true. Karnani (2006) states that the BoP proposition 'is, at best, a harmless illusion and potentially a dangerous delusion. The BoP argument is riddled with inaccuracies and fallacies.' Other than the success of microcredit, there have not been many convincing examples of the fortune to be made at the bottom of the pyramid (Kay and Lewenstein, Harvard Business Review, April 2013).

LITERATURE

Karnani, Aneel G. (2006) 'Fortune at the Bottom of the Pyramid: A Mirage', Ross School of Business Paper No. 1035, available at Social Science Research Network.
London, T., Hart, S.L. (2011) *Next Generation Business Strategies for the Base of the Pyramid*:

New Approaches for Building Mutual Values, Upper Saddle River, Pearson.
Pralhad, C.K. (2004) *Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits*, Philadelphia, Wharton School Publishing.

MODEL 2: Multiple Stakeholder Sustainability, Fons Trompenaars and Peter Woolliams (2010)



PROBLEM STATEMENT

How can I assess the most significant organizational dilemmas resulting from conflicting stakeholder demands and also assess organizational priorities to create sustainable performance?

ESSENCE

Organizational sustainability is not limited to the fashionable environmental factors such as emissions, green energy, saving scarce resources, corporate social responsibility, and so on. The future strength of an organization depends on the way leadership and management deal with the tensions between the five major entities facing any organization: efficiency of business processes, people, clients, shareholders and society. The manner in which these tensions are addressed and resolved determines the future strength and opportunities of an organization. This model proposes that sustainability can be defined as the degree to which an organization is capable of creating long-term wealth by reconciling its most important ('golden') dilemmas, created between these five components. From this, professors and consultants Fons Trompenaars and Peter Woolliams have identified ten dimensions consisting of dilemmas formed from these five components, because each one competes with the other four.

HOW TO USE THE MODEL:

The authors have developed a sustainability scan to use when making a diagnosis. This scan reveals:

1. The major dilemmas and how people perceive the organization's position in relation to these dilemmas;
2. The corporate culture of an organization and their openness to the reconciliation of the major dilemmas;
3. The competence of its leadership to reconcile these dilemmas.

After the diagnosis, the organization can move on to reconciling the major dilemmas that lead to sustainable performance. To this end, the authors developed a dilemma reconciliation process.

RESULTS

To achieve sustainable success, organizations need to integrate the competing demands of their key stakeholders: operational processes, employees, clients, shareholders and society. By diagnosing and connecting different viewpoints and values, their research and consulting practice results in a better understanding of:

1. The key challenges the organization faces with its various stakeholders and how to prioritize them;
2. The extent to which leadership and management are capable of addressing the organizational dilemmas;
3. The personal values of employees and their alignment with organizational values.

These results help an organization define a corporate strategy in which crucial dilemmas are reconciled, and ensure that the company's leadership is capable of executing the strategy

sustainably. It does so while specifically addressing the company's wealth-creating processes before the results show up in financial reports. It attempts to anticipate what the corporate financial performance will be some six months to three years in the future, as the financial effects of dilemma reconciliation are budgeted.

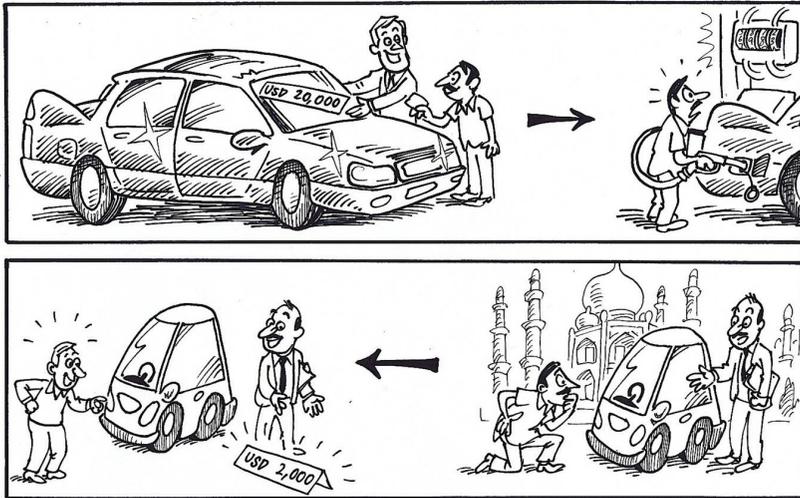
COMMENTS

The sustainability scan reconciles the key dilemmas that corporations face today and tomorrow. It takes a unique approach to making strategic decisions that are tough as well as inevitable, with the goal of realizing a profitable and sustainable corporate future. Consulting firm Trompenaars-Hampden Turner offers an elaborate set of tools, of which a substantial part is available at no cost, to make this approach happen. The leading partners of this firm have strengthened the approach in dozens of academic articles and books. The fact that their approach is rather closely attached to their consulting practice does limit its dispersion among other practitioners and academics, however.

LITERATURE

- Buytendijk, F. (2010) *Dealing with Dilemmas: Where Business Analytics Fall Short*, New York, John Wiley.
- Hampden-Turner, C. (1990) *Charting the Corporate Mind: Graphic Solutions to Business Conflicts*, New York, The Free Press.
- Trompenaars, F., Woolliams, P. (2009) 'Towards a Generic Framework of Competence for Today's Global Village', in: *The SAGE Handbook of Intercultural Competence*, ed. D.K. Deardorff, Thousand Oaks, Sage.

MODEL 3: Reverse Innovation, Vijay Govindarajan (2009)



PROBLEM STATEMENT

How can reverse innovation create growth?

ESSENCE

Vijay Govindarajan claims that the need and eagerness in emerging markets for sustainable growth creates an environment for innovation that is superior to the environment in more affluent countries. Govindarajan observes the following evolution: from globalization (richer countries that export what they use themselves) came glocalization (adaption to local needs on a global scale), followed by local innovation (emerging markets increasingly innovate themselves), which is making way for reverse innovation (emerging markets dominate innovation).

Reverse innovation is also called trickle-up innovation or frugal innovation. Govindarajan's approach builds on Christensen's theory of how innovation can be disruptive and C.K. Prahalad's notion that there is a fortune to be made at the bottom of the social pyramid. Govindarajan served as the first professor-in-residence and chief innovation consultant at General Electric. Some of the stories that illustrate reverse innovation were developed there, and supported by CEO Jeff Immelt.

HOW TO USE THE MODEL

Govindarajan and Trimble (2012) cover nine rules 'that will guide your innovation efforts', in three categories, that can be summarized as follows:

1. Strategy: To grow in emerging markets, innovate, not simply export; grow from innovations in emerging market to other emerging markets; beware of small but fast-growing companies in emerging markets;
2. Global organization: Move resources to where growth is; create a reverse innovation mindset; focus in these markets on growth metrics;
3. Project organization: Stimulate an entrepreneurial 'start-up' spirit; leverage resources through partnerships; resolve critical unknowns quickly and inexpensively.

In addition, Govindarajan and Trimble (2012) provide several practical diagnostics and templates to move reverse innovation forward in a company.

RESULTS

Working with reverse innovation helps creative thinking about unconventional ways to innovate and grow. Evidence that supports this reverse-thinking model is mainly based on how multinational companies operate.

COMMENTS

Like C.K. Prahalad's theory of how a fortune can be made at the bottom of the pyramid, Govindarajan's model has received criticism that the theory is not very specific in its approach and that there are only a few showcase examples, in a couple of big companies, to prove the concept, mainly from India and China. In addition, it is not completely unheard of for innovations from emerging markets to become successful, even in richer countries. That does not reduce the challenge that remains for rich countries of finding new ways to grow; in any scenario, this will increasingly be done with the emerging economies. Govindarajan presents a roadmap that at least has the power to take a radically different look at how most (Western) countries do business.

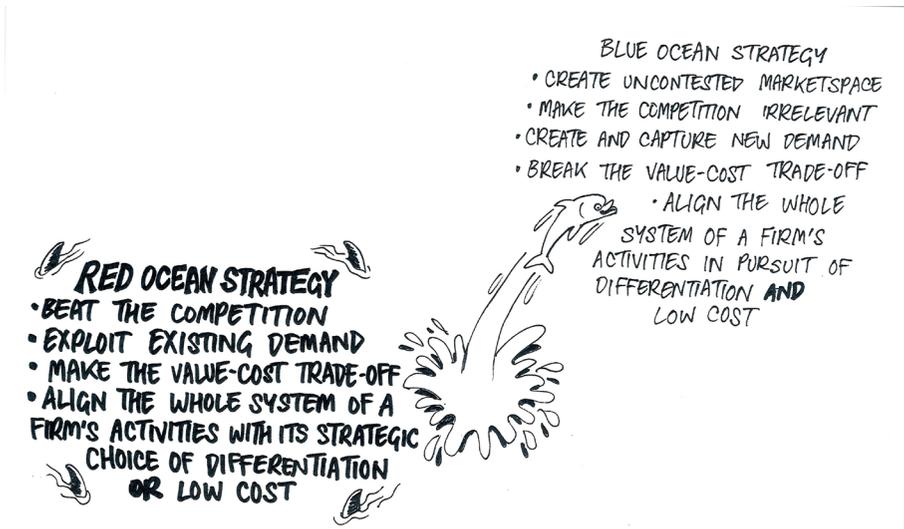
LITERATURE

Govindarajan, V., Trimble, C. (2012) *Reverse Innovation: Create Far from Home, Win Everywhere*, Boston, Harvard Business Press.

Immelt, J.R., Govindarajan, V., Trimble, C. (2009) 'How GE is disrupting itself', *Harvard Business Review*, 87.10, pp. 56–65.

Mahbubani, K. (2013) *The Great Convergence: Asia, the West, and the Logic of One World*, New York, Perseus.

MODEL 4: Blue Ocean Strategy, W. Chan Kim and Renée Mauborgne (2005)



PROBLEM STATEMENT

How can we create a long-term plan for sustained competitive advantage by focusing on new markets, without focusing on competition?

ESSENCE

Kim and Mauborgne developed their Blue Ocean Strategy in 2005, building on earlier publications that also explored the insight that an organization should create new demand in an uncontested marketplace, or a 'blue ocean', where the competition is irrelevant. In blue oceans, organizations invent and capture new demand, and offer customers a leap in value while also streamlining costs. The central idea is to stop competing in overcrowded industries, so-called 'red oceans', where companies try to outperform rivals to grab bigger slices of existing demand. As the space gets increasingly crowded, profit and growth prospects shrink because products become commoditized. Ever more intense competition turns the water bloody. Blue Ocean Strategies result in better profits, speedier growth and brand equity that lasts for decades while rivals scramble to catch up.

HOW TO USE THE MODEL

The authors provide many examples of businesses that have created new markets (blue oceans) and present a model for crafting supporting strategies.

1. Eliminate factors in your industry that no longer have value;
2. Reduce factors that over-serve customers and increase cost structure for no gain;
3. Raise factors that remove compromises buyers must make;
4. Create factors that add new sources of value.

In addition, Kim and Mauborgne list a number of practical tools, methodologies and frameworks for formulating and executing Blue Ocean Strategies, attempting to make the creation of blue oceans a systematic and repeatable process.

In their 2009 article 'How Strategy Shapes Structure', Kim and Mauborgne stress the importance of alignment across the value, profit and people propositions, regardless of whether one takes the structuralist (traditional competitive, Porter-like) or the reconstructionist (blue ocean) approach to strategy.

RESULTS

Blue Ocean Strategy should result in making the competition irrelevant. Therefore, organizations need to avoid using the existing competition as a benchmark. Instead, make the competition irrelevant by creating a leap in value for both your organization and your customers. Another result should be the reduction of your costs while also offering customers more value. For example, Cirque du Soleil omitted costly elements of traditional circuses, such as animal acts and aisle concessions. Its reduced cost structure enabled it to provide sophisticated elements from theatre that appealed to adult audiences – such as themes, original scores and enchanting sets – all of which change from year to year.

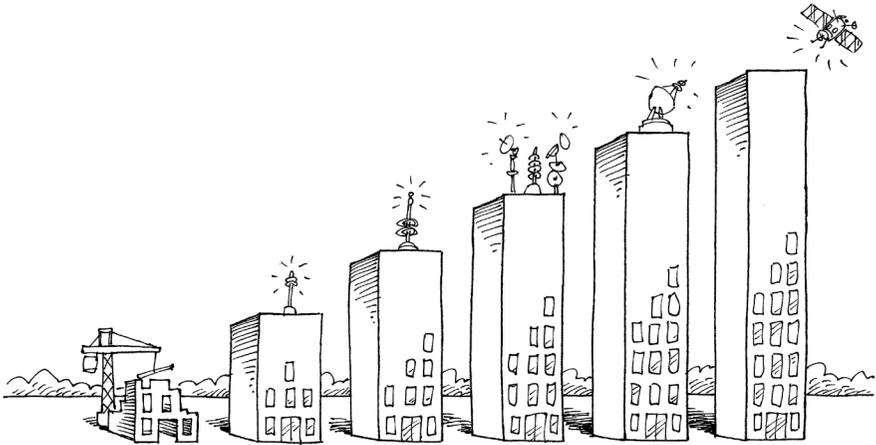
COMMENTS

The logic behind Blue Ocean Strategy is counter-intuitive, since blue oceans seldom result from technological innovation. Often, the underlying technology already exists and blue ocean creators link it to what buyers value. Furthermore, organizations don't have to venture into distant waters to create blue oceans. Most blue oceans are created from within, not beyond, the red oceans of existing industries. Incumbents often create blue oceans within their core businesses. A similar idea was put forward by Swedish management authors Jonas Ridderstråle and Kjell Nordström in their 1999 book *Funky Business*. Blue Ocean Strategy is an inspiring way to look afresh at familiar environments with a view to finding a competitive edge. Unfortunately, most companies have marketing and strategy departments that look for benchmarks to be inspired by and copy rather than trying to be different.

LITERATURE

- Kim, W.C., Mauborgne, R. (1997) 'Value Innovation – The Strategic Logic of High Growth', *Harvard Business Review*, January/February, pp. 103–112.
- Kim, W.C., Mauborgne, R. (2004) 'Blue Ocean Strategy', *Harvard Business Review*, January/February, pp. 71–79.
- Kim, W.C., Mauborgne, R. (2009) 'How Strategy Shapes Structure', *Harvard Business Review*, September, pp. 72–80.

MODEL 5: Six Stages of Social Business Transformation, Charlene Li and Brian Solis (2013)



PLANNING **PRESENCE** **ENGAGEMENT** **FORMALIZED** **STRATEGIC** **CONVERGED**
listen & learn stake our Dialogue deepens Organise Become a Business to
Claim Relationships for Scale Social Business Social

PROBLEM STATEMENT

How can organizations optimize engagement with their target audience through social media?

ESSENCE

Charlene Li and Brian Solis, consultants and authors on social media and digital marketing, have developed a leading body of knowledge on how organizations can deal with the

rising importance of transparency and engagement. Their model builds on the ideas of Groundswell (Li and Bernoff, 2008), describing how people increasingly connect with each other to be informed, rather than listening to organizations. The book describes how companies are becoming less able to control customers' attitudes through market research, customer service and advertising. Instead, customers increasingly control the conversation by using new media to communicate about products and companies. Li and Solis observe that organizations connect with customers by taking the following steps:

1. Planning – 'Listen and learn': Ensure commitment to get the business social.
2. Presence – 'Stake our claim': Evolution from planning to action, establishing a formal and informed presence in social media;
3. Engagement – 'Dialogue deepens relationships': Commitment where social media is seen as a critical element in relationship-building;
4. Formalized – 'Organize for scale': A formalized approach focuses on three key activities: establishing an executive sponsor, creating a centre of excellence and establishing organization-wide governance;
5. Strategic – 'Become a social business': Social media initiatives gain visibility and real business impact.
6. Converged – 'Business to social': Having cross-functional and executive support, social business strategies start to weave into the fabric of an evolving organization.

HOW TO USE THE MODEL

The model can serve as a roadmap for organizations to improve their engagement with stakeholders, especially through social media. A model to measure current engagement of an organization with its target audience is Li's Social Technographics Ladder (Li and Bernoff, 2008). The ladder identifies people according to how they use social technologies, classified as creators, critics, collectors, joiners, spectators and inactives. Taken together, these groups make up the ecosystem that forms the groundswell. Each step on the ladder represents a group of consumers more involved in the groundswell than the previous steps. To join the group on a step, a consumer need only participate in one of the listed activities.

Steven van Belleghem, from Vlerick Business School, has developed a three-step approach to setting up and managing a conversation on any level of the Technographics Ladder: observe the conversation you perceive as relevant as an organization, facilitate the conversation you want to create and join the conversation as a peer.

RESULTS

Implementing the model as a roadmap towards more social engagement requires leadership in managing this change process. The authors of Groundswell suggest the POST approach for change, working with people (assess social activities of customers), objectives (decide what you want to accomplish), strategy (plan for how relationships with customers will change)

and technology (decide which social technologies to use).

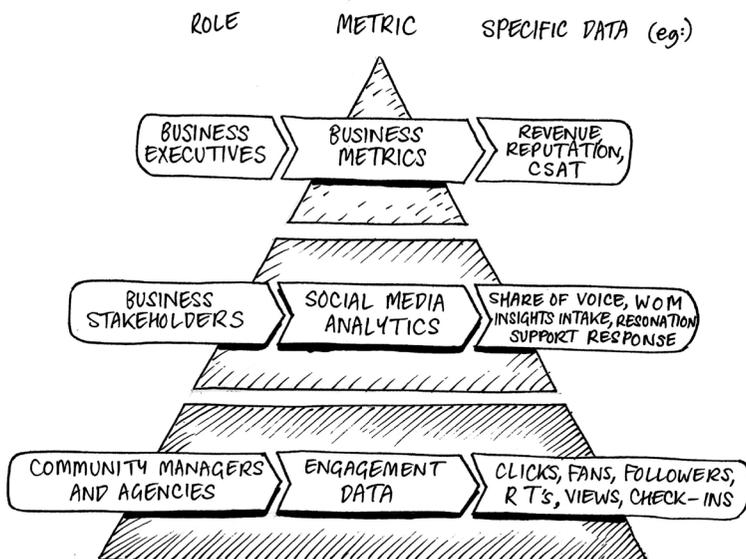
COMMENTS

The impact of the Internet on society in general, and of social media in particular, has not created a paradigm shift in social science, as yet. In academia, the information revolution and ongoing digitization is mostly being explained by classic models, of which the most powerful are included in this book. Competing with these classics is a burgeoning variety of authors and consultants who publish all sorts of new models, mainly through media where displaying academic evidence is considered of low importance. The books of Li and Solis may not represent the state of the art in academia, but they do offer research-based, new, practical and appealing approaches in defining digital marketing.

LITERATURE

- Duhé, S. ed. (2012) *New Media and Public Relations*, 2nd Ed., New York, Peter Lang Publishing.
- Li, C., Bernoff, J. (2011) *Groundswell, expanded and revised edition: Winning in a World Transformed by Social Technologies*, Boston, Harvard Business School Press.
- Solis, B. (2011) *Engage! The Complete Guide for Brands and Businesses to Build, Cultivate, and Measure Success in the New Web*, Hoboken, John Wiley.

MODEL 6: Social Media ROI Pyramid, Jeremiah Owyang (2010)



PROBLEM STATEMENT

How can one measure the return on investment (ROI) of social media?

ESSENCE

Return on investment (ROI) is a key concept in business, describing when an investment will be gained back. For investments in social media, Jeremiah Owyang, management consultant at Altimeter, developed a hierarchy of metrics, depicted above, to merge various forms of metrics for social media, serving various stakeholders in different roles. This model attempts to fulfil the need of an increasing number of organizations that find it difficult to define critical success factors and key performance indicators for online communications in general and social media in particular.

Owyang proposes distinguishing different, but related, metrics for different layers in an organization:

1. Business metrics, for executives (and 'everyone else who supports them'), summarizing the social media analytics;
2. Social media analytics, for the managers and employees who are strongly engaged in social media, focusing on how social media impacts business;
3. Engagement data, for community managers and communications agencies, measuring the social footprint in detail (e.g. in clicks, followers, likes, retweets, views, etc.).

HOW TO USE THE MODEL

Owyang proposes five steps to start using the ROI Pyramid:

1. Start with a business goal in mind: expect significant challenges to occur if your social media efforts don't have a business goal. It's easy to spot when this happens, as the goal will be getting 'more fans and followers' rather than moving the business needle forward.
2. Give the right data to the right roles: not all roles require the same types of data; be sure to give the right type of data to the right segment. While all the formulae of the pyramid should be accessible by the corporation, understand the viewpoints needed from each vantage point.
3. Tailor the frequency and quantity of data along pyramid tiers: recognize that executives need reports less frequently than the deployment teams, hence their size on the pyramid. Also, there is more data needed at the bottom tiers than at the top; remember the top tiers are roll-up formulae from bottom tiers.
4. Customize formulae: as long as there are no standards in measuring social media, there is no need to wait for them.
5. Benchmark over time and cascade to all layers of the organization. Note that the

specific numbers aren't as important as the trend lines over time.

In addition, Owyang found that organizations apply 'six ways of measuring the revenue impact of social media', of which three are top-down: anecdotes, correlations and multivariate testing. The other three are bottom-up: measuring the 'clicks' (see also under 'engagement data' above), using integrated software and measuring e-commerce.

RESULTS

Applying the model may result in developing an overall dashboard for the organization to monitor progress of a company's conversation strategy, or it can be used to help define which metrics need further refinement and how they connect with other metrics (as, for instance, used in a balanced scorecard) that measure success in corporate communications.

COMMENTS

Measuring the effect of communications has been a challenge for as long as communications have been studied. John Wanamaker, a pioneer of marketing in the nineteenth century, said: 'Half the money I spend on advertising is wasted; the trouble is, I don't know which half' Some critics argue that science hasn't made much improvement since. Especially in online communications, trial and error is inevitable in making progress along the new frontiers of global communications. Measuring the plans and results will at least contribute to learning from mistakes and, at best, guide the organization into the envisioned future.

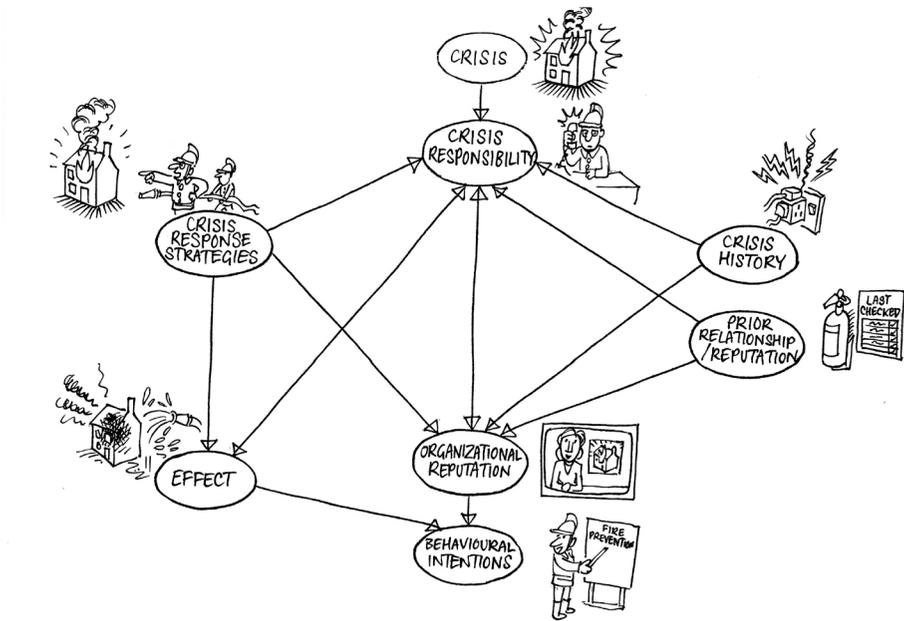
LITERATURE

Blanchard, O. (2011) *Social Media ROI: Managing and Measuring Social Media Efforts in your Organization*, Boston, Pearson Education.

Broom, D., McCann, M., Bromby, M.C., Barlow, A. (2011) *Return on Investment: What Literature Exists on the Use of Social Media and ROI?* Available online at Social Science Research Network.

Kelly, N. (2013) *How to Measure Social Media: A Step-by-Step Guide to Developing and Assessing Social Media ROI*, Boston, Pearson Education.

MODEL 7: Situational Crisis Communication Theory, Timothy Coombs (1995)



PROBLEM STATEMENT

How should an organization communicate during a crisis?

ESSENCE

According to Timothy Coombs, crises are negative events that cause stakeholders to make 'attributions' (interpretations) about crisis responsibility, affecting how stakeholders interact with the organization. Attribution theory holds that people constantly look to find causes, or make attributions, for different events, especially if those events are negative or unexpected. In his situational crisis communication theory (SCCT), Coombs suggests that effective crisis response depends on the assessment of the situation and the related reputational threat.

To support this assessment, Coombs distinguishes three clusters of crises:

1. **Victim:** Where the organization is a victim of the crisis (e.g. natural disasters, rumours) – minor reputational threat;
2. **Accident:** Where the organizational actions leading to the crisis were unintentional

(e.g. equipment or product failure, accusations from external stakeholders) – medium reputational threat;

3. Intentional: Where the organization knowingly took inappropriate risk – major reputational threat.

Additionally, reputational threat is potentially 'intensified' (positively or negatively) by crisis history (were there similar crises in the past with this organization?) and prior relational reputation (how is the organization known for treating stakeholders?).

HOW TO USE THE MODEL

Once the levels of crisis responsibility and reputational threat have been determined, SCCT builds on communications professor William L. Benoit's image restoration model by identifying a limited set of primary crisis response strategies:

1. Denial (attacking the accuser, denial of the story, scapegoating);
2. Diminishment (offering excuses, justification of what happened);
3. Rebuilding (compensation of victims, offering apologies, taking full responsibility).

A secondary, supporting crisis response strategy is bolstering, or reinforcing: reminding stakeholders about the good works of the organization and/or how the organization is a victim as well.

Neither Benoit nor Coombs considers silence as a strategy, with Coombs stating that 'Silence is too passive and allows others to control the crisis' (Coombs and Holladay, 2012). Indeed, much has changed since 1882, when entrepreneur William Vanderbilt could say 'The public be damned'.

For monitoring purposes, professor Marita Vos developed a crisis communications scorecard to measure clarity, environmental fit, consistency, responsiveness, effectiveness and efficiency of concern communications, marketing communications, internal communication and the organization of communications. Detailed information is available at www.crisiscommunication.fi.

RESULTS

SCCT identifies as crisis outcomes: organizational reputation, effect (emotions of stakeholders, like sympathy or anger) and behavioural intentions (of stakeholders, like purchase intention or word of mouth).

Coombs points out that the effectiveness of the crisis response is also influenced by how the organization managed the pre-crisis phase (prevention and preparation) and the post-crisis phase, (learning from mistakes and successes). Whereas the dynamics of social media limit the time for thinking a crisis response through, time can be won in the preparation phase, as social media offers various opportunities to see a crisis coming.

COMMENTS

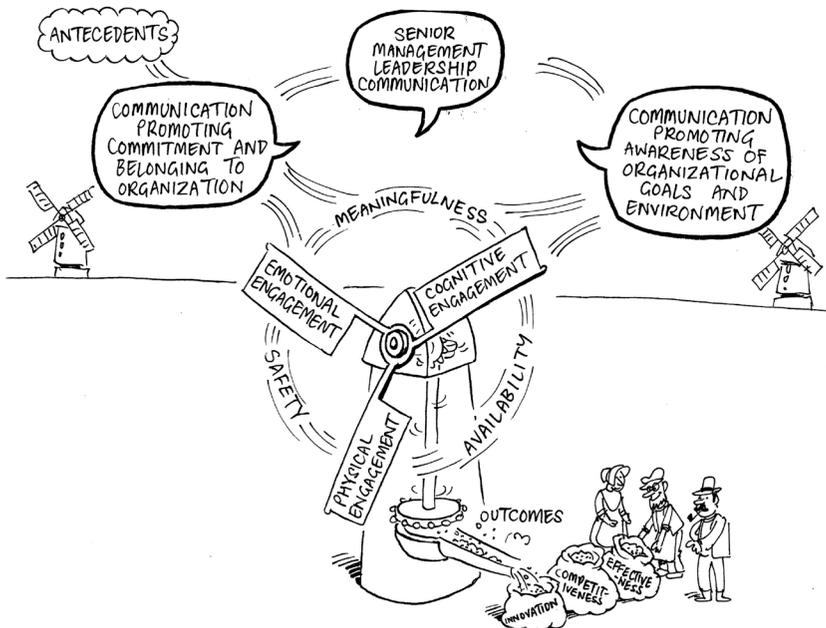
Similar to corporate apologetics theory and image repair theory, SCCT has a strong focus on corporate reputation repair. In developing a crisis response strategy, there are factors not included in SCCT that might also be considered to determine reputational threat. Potentially influential factors might be the role of culture, the role of visual elements in crisis media coverage, or other factors that are recognized by attribution theory, contingency theory (built on the idea that there is no best way to organize a corporation) and complexity theory (dealing with the 'black swans', or uncertainty about the unknown unknowns).

As SCCT is a model for understanding crisis communication on a strategic level, it does not provide detailed guidelines on the tactics of crisis communication. As a general guideline, the advice of PR consultant and author Leonard Saffir applies: 'Be quick with the facts, slow with the blame.'

LITERATURE

- Benoit, W.L. (1997) 'Image Restoration Discourse and Crisis Communication', *Public Relations Review*, 23:2, pp. 177–186.
- Coombs, W.T., Holladay, S.J. (2012) *The Handbook of Crisis Communication*, Oxford, Wiley-Blackwell.
- White, C.M. (2012) *Social Media, Crisis Communication, and Emergency Management: Leveraging Web 2.0 Technologies*, Boca Raton, Taylor & Francis.

MODEL 8: Communication and Employee Engagement, Mary Welch (2011)



PROBLEM STATEMENT

How can employee engagement be strengthened through communication?

ESSENCE

Academic and former communications professional Mary Welch connects insights on HRM, leadership and communication in her view of employee engagement. The roots of her model can be traced back to the work of Daniel Katz and Robert Kahn, who discussed the importance of engaging with employees in their 1966 classic *The Social Psychology of Organizations*. This was taken up in 1999 by Gallup's Marcus Buckingham and Curt Coffman in their book *First, Break all the Rules*, that claimed that engaged employees drive customer loyalty and that 'The right people in the right roles with the right managers drive employee engagement'. Since then, business interest in the concept has prompted demand for the provision of employee engagement consultancy services, which has been met by companies including Gallup, Aon Hewitt, Mercer, Towers Watson, Hay Group, Kenexa and BlessingWhite. These companies, among many others, offer a series of reports and tools (widely available

on their corporate websites) to support the bottom line by measuring and strengthening employee engagement.

HOW TO USE THE MODEL

This conceptual model illustrates the possible impact of communication on employee engagement at an organizational level. Engagement is recognized as a three-component construct comprising emotional, cognitive and physical dimensions, associated with dedication, absorption and vigour. The three psychological conditions necessary for engagement (meaningfulness, safety and availability) that Robert Kahn identified in his later work are integrated into the model. Commitment is associated with engagement and is affected by leadership communication, so the model integrates the constructs of organizational commitment as an antecedent of engagement. It positions aspects of leadership communication from senior managers in relation to employee engagement. Communication is a psychological need of employees, which organizations have to meet to maintain and develop employee engagement. Aspects of internal corporate communication are positioned as influencing engagement variables on the one hand (by promoting commitment and a sense of belonging), and as communication engagement outcomes on the other (through awareness and understanding). The model conceptualizes innovation, competitiveness and organizational effectiveness as organizational outcomes of employee engagement, which can be promoted by effective internal corporate communication.

RESULTS

The model encourages communicators to consider potential engagement effects of communication strategies and tactics as well as the communication needs of employees. In combination with a wide choice of tools that are available on the Internet, typically provided by consulting firms who offer additional services for analysis and implementation, the model serves as an academic reference and possible framework for improvement plans.

COMMENTS

Despite its importance for leaders of organizations, there is considerable academic confusion about the meaning of employee engagement and its contribution to performance. On a theoretical level, however, there appears to be consensus about the strong role of communication. This is in line with how various authors on management theory define the importance of communication in leadership, including John Kotter's 8-step process for leading change (discussed earlier in this Part), with step four being 'communicating the vision for buy-in'. Surprisingly, corporate communication literature has not yet adequately considered the concept of engagement. This may be due to confusion concerning the concept, and to concerns about overlaps with other constructs such as commitment. This model tackles the gap in the literature, modelling the role of internal corporate communication in enhancing employee engagement.

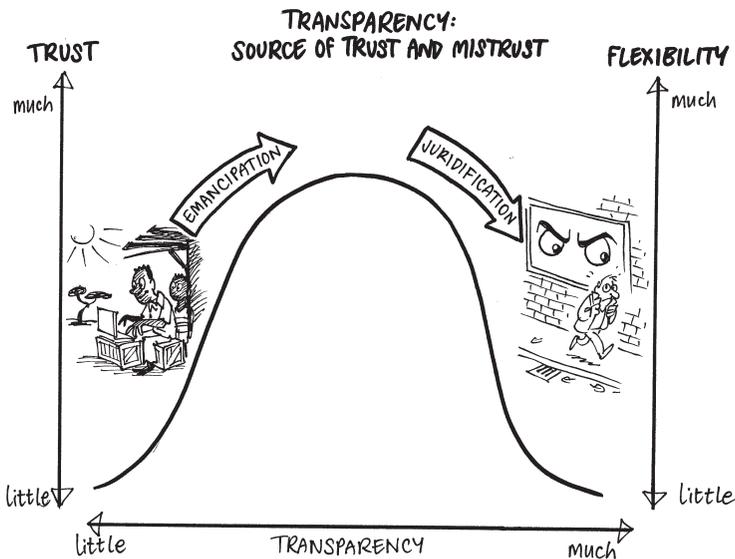
LITERATURE

Albrecht, S.L. (2012) *Handbook of Employee Engagement: Perspectives, Issues, Research and Practice*, Cheltenham, Edward Elgar.

Groysberg, B., Slind, M. (2012) 'Leadership is a Conversation', *Harvard Business Review*, June, pp. 75–84.

Welch, M. (2011) 'The Evolution of the Employee Engagement Concept: Communication Implications', *Corporate Communications: An International Journal*, 16:4, pp. 328–346.

MODEL 9: Balancing Transparency, Piet Hein Coebergh and Edi Cohen (2009)



PROBLEM STATEMENT

What is the optimum level of transparency for an organization?

ESSENCE

Transparency seems to be growing worldwide, yet people differ widely in their assessments of the value and impact of transparency. To explore the risks and benefits of transparency, consultant and former financial journalist Edi Cohen and lecturer and consultant Piet Hein

Coebergh reviewed literature on transparency and interviewed 33 (Dutch) achievers in science, politics and business on when individuals or organizations should be transparent about who they are, what they want and what they do. Their research showed that decision-makers vary greatly on the dilemma of when to be transparent. Optimists believe that the benefits of transparency outweigh the disadvantages; pessimists believe the opposite. Perceived benefits include increased access to valuable information and increased opportunities to raise one's voice, leading to emancipation of deprived people. Perceived risks include increased juridification (as people tend to regulate more when they know more) and decreased privacy.

HOW TO USE THE MODEL

With the help of history professor James Kennedy, Coebergh and Cohen constructed a concave function that reflects how different levels of transparency are experienced. When there is little transparency in a given environment, people find it difficult to trust each other and hesitate to behave flexibly. When people open up and behave more transparently, mutual trust is raised and behaviour becomes more flexible. Conversely, redundant transparency results in people feeling over-monitored, making them feel mistrusted. Juridification – the burden of rules that govern a group – typically measures redundancy of transparency. The reconciliation of the dilemma between emancipation and juridification is governed by the individual and collective morality, taste, ethics and intelligence of stakeholders, as some people deal well with tough information, while others don't.

RESULTS

The model helps to identify the risks and benefits of transparency for individuals or organizations. This aids in assessing to what extent transparency should be more or less pursued in a given context.

COMMENTS

The pros and cons of transparency are increasingly being researched. For global societies, Kirstin Lord found that 'the information revolution may not lead to security, democracy or peace' (2007). For publicly listed corporations, Coebergh (2011) found that transparency (in corporate strategy) significantly contributes to corporate reputation and to liquidity of stock. In a historical essay, Manfred Schneider (2013) also shows that the human urge for transparency is constantly growing, leading to societal control increasingly replacing societal trust.

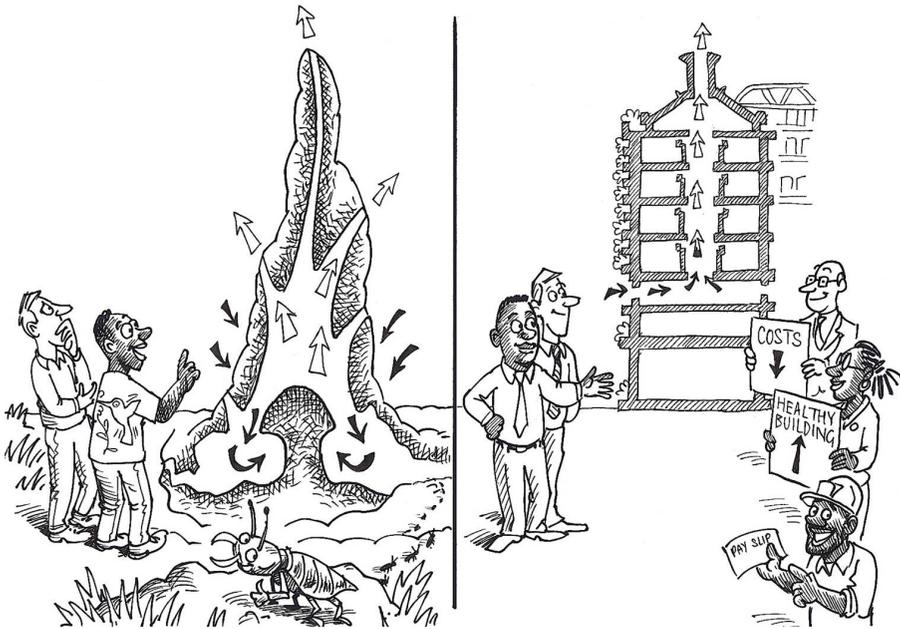
LITERATURE

Coebergh, P.H., Cohen, E. (2009) *Grenzen aan transparantie*, Amsterdam, Business Contact
Coebergh, P.H. (2011) 'Voluntary Disclosure of Corporate Strategy: Determinants and Outcomes – An Empirical Study into the Risks and Payoffs of Communicating Corporate

Strategy', available online at Social Science Research Network.

Lord, K.M. (2007) *The Perils and Promise of Global Transparency: Why the Information Revolution May Not Lead to Security, Democracy, or Peace*, New York, State University of New York Press.

MODEL 10: The Blue Economy, Gunter Pauli (2010)



PROBLEM STATEMENT

How do we turn poverty into development and scarcity into abundance with what we have?

ESSENCE

Gunter Pauli is an entrepreneur, author and initiator of the Blue Economy. His concept is about stimulating entrepreneurship while setting new and higher standards of sustainability, and also keeping associated costs down. The goal is high: to create 100 million jobs and substantial capital value through 100 innovations before 2020. This approach contrasts with the Red Economy (socialist planning, which didn't work) and the Green Economy (which tends to require strong investments in unclear projects, benefiting only the happy few). The Blue Economy business model wants society to shift from scarcity to abundance 'with what

we have,' by tackling issues that cause environmental and related problems in new ways. The theory highlights benefits in connecting and combining seemingly disparate environmental problems with open-source scientific solutions based upon physical processes common in the natural world, to create solutions that are both environmentally beneficial and which have financial and wider social benefits.

HOW TO USE THE MODEL

The concept of the Blue Economy is supported by the methodology of the Zero Emissions Research and Initiatives network (ZERI), including the following sets of instruments:

- Five kingdoms of nature: bacteria, algae, fungi, animals, plants; a classification that is inspired by the work of biologist Lynn Margulis;
- Five design principles, to work with these five kingdoms of nature (all following the key idea that there is no such thing as waste);
- Five intelligences: emotional, academic, artistic, eco-literacy (systems thinking) and capacity to implement;
- Twelve axioms of economics: principles of purpose, growth, productivity, cashflow, price, quality, competitiveness, place, innovation, diversification, management and thermodynamics.

More information can be found at www.zeri.org.

As for combining seemingly disparate environmental problems with open-source scientific solutions, theories about innovation can be used, such as those discussed in Part 2, as well as creativity techniques like brainstorming, bi-sociation, lateral thinking and Yellow Thinking.

RESULTS

The ZERI movement is engaged in a wide range of projects that are recorded and shared online through www.theblueeconomy.org.

COMMENTS

For academic as well as practical purposes, initiatives like this one contribute to a better understanding of what sustainability can mean for society in practice. This body of knowledge adds to the theories discussed in Part 1.

LITERATURE

- Blackburn, W.R. (2007) *The Sustainability Handbook: The Complete Management Guide to Achieving Social, Economic and Environmental Responsibility*, Washington, Environmental Law Institute.
- Hitchcock, D., Willard, M. (2009) *The Business Guide to Sustainability: Practical Strategies and Tools for Organizations*, New York, Earthscan.
- Pauli, G. (2010) *Blue Economy – 10 Years, 100 Innovations, 100 Million Jobs*, Taos, Paradigm Publications.

