

Werner G. Faix, Jens Mergenthaler
Rolf-Jürgen Ahlers, Michael Auer

An abstract network diagram composed of teal-colored nodes and connecting lines. The nodes vary in size, with some being significantly larger than others. The lines are thin and connect the nodes in a non-linear, branching pattern. The overall structure suggests a complex, interconnected system or network. The diagram is overlaid on a white background.

Innovation

InQ

Quality

The Value of the New

Werner G. Faix, Jens Mergenthaler
Rolf-Jürgen Ahlers, Michael Auer



InQ

InnovationQuality

The Value of the New

Impressum

© 2015 Steinbeis-Edition

All rights reserved. No part of this book may be reprinted, reproduced or utilised in any form by any electronic, mechanical or other means now known or hereafter invented, including photocopying, microfilming and recording or in any information storage or retrieval system without written permission from the publisher.

Werner G. Faix, Jens Mergenthaler, Rolf-Jürgen Ahlers, Michael Auer
InnovationQuality. The Value of the New

1st edition, 2015 | Steinbeis-Edition, Stuttgart

ISBN 978-3-95663-062-0

First published in 2014 | German edition "InnovationsQualität"

Layout: Steinbeis-Edition

Cover picture: © Shutterstock.com / watchara

Print: Printsysteem GmbH, Heimsheim

Translation: englishtalk GbR, Stuttgart

Steinbeis is an international service provider in entrepreneurial knowledge and technology transfer. The Steinbeis Transfer Network is made up of about 1,000 enterprises. Specialized in chosen areas, Steinbeis Enterprises' portfolio of services covers research and development; consulting and expert reports as well as training and employee development for every sector of technology and management. Steinbeis Enterprises are frequently based at research institutions, especially universities, which are constituting the Network's primary sources of expertise. The Steinbeis Network comprises around 6,000 experts committed to practical transfer between academia and industry. Founded in 1971, the Steinbeis Foundation is the umbrella organization of the Steinbeis Transfer Network. It is headquartered in Stuttgart, Germany.

180936-2015-08 | www.steinbeis-edition.de

List of contents

List of figures	7
List of tables	8
List of formulas	9
Foreword	10
Introduction	12
1 The issue	13
1.1 The ordinariness of incessant and intense change	13
1.2 The importance of creative destruction.....	21
2 Issues, aims and approach	27
Step 1: Introduction to the two terms of “Quality” and “Innovation” by closely examining the phenomena and their distinctive characteristics.....	34
1 A closer examination of the phenomenon of “quality”	35
1.1 The “degree” of quality.....	35
1.2 The “set of inherent characteristics” of quality	36
1.3 The “requirements” relating to quality	38
2 A closer examination of the phenomenon of “innovation”	41
2.1 The nature of innovation	45
2.2 The social context of innovation.....	51
2.3 Types of innovation.....	54
2.4 Innovation – such a glamorous phenomenon.....	61
Step 2: Combination of the two terms, or the two phenomena of “innovation” and “quality”	64
1 First attempt: Combination of the terms “innovation” and “quality”	65
1.1 The difficulty with interpreting and evaluating the New	65
1.2 When quality becomes a disaster	68
1.3 Beyond new products	71
2 Second attempt: Derivation of a comprehensive, general and pragmatic interpretation of “InnovationQuality”	75
2.1 The “degree” of InnovationQuality.....	75
2.2 The “set of inherent characteristics” of an innovation	78
2.3 The “requirements” of an innovation.....	79
2.4 In summary: A definition of “InnovationQuality”	80

Step 3: Specific definition of the interpretation of InnovationQuality, also as a quantitative variable.....	82
1 The term value creation as a retrospective definition	83
2 The term value creation as a prospective hope	88
3 The timeframe of value creation	94
4 Summary: A formula for InnovationQuality	98
5 Some concluding comments, should we be accused of being over-simplistic.....	101
Step 4: Outline of a model for InnovationQuality	104
1 A look at some of the existing innovation models	105
2 Derivation of a model of InnovationQuality from the EFQM excellence model.....	111
2.1 Enablers of InnovationQuality	112
2.2 Reasons for InnovationQuality.....	114
2.3 The outcome of InnovationQuality.....	116
3 Conclusion: an integrated model of InnovationQuality	121
Step 5: Illustration of an approach for managing InnovationQuality	124
1 The strategic triangle of business development.....	125
2 The strategic triangle of innovation and InnovationQuality management.....	130
2.1 Phase 1: Decision to develop InnovationQuality.....	131
2.2 Phase 2: Analysis of the current situation and the framework conditions with respect to current and possible value creation.....	133
2.3 Phase 3: Definition and evaluation of opportunities and threats	136
2.4 Phase 4: Definition of specific innovation project outcomes (InnovationQuality project objectives)	138
2.5 Phase 5 and 6: Definition and implementation of the strategy	146
2.6 Phase 7: Monitoring of achievement of objectives regarding value creation resulting from an innovation	148
2.7 Phase 8: Entering back into the process.....	149
3 Summary: The heuristics of creation	150
4 A final digression: Some homework and suggestions for quality management.....	154
Conclusion	158
1 The imperative of the “Schumpeterian Entrepreneur”	159
2 Innovation as the work of “creative people ”	160
3 ... and still not finished: Stimulus for more thought on the value of the New.....	163
List of references.....	167

List of figures

Figure 1: Innovation as a driving force in the market economy (based on Faix 2008: 20)	14
Figure 2: Market of the imitator (Nagel 1995)	16
Figure 3: Reciprocal reinforcement in the triangle of change (Rosa 2008)	18
Figure 4: Relationship between organic growth and growth through acquisitions at Fortune Global 500 Companies (1995–2004) (Raisch, Probst, Gomez 2007: 43).....	22
Figure 5: Growth through innovation (Faix 2008: 20)	25
Figure 6: The term “Lion” as a group of distinctive characteristics	28
Figure 7: A metaphor and its role in transferring characteristics	29
Figure 8: Metaphor, “if one compares a king with a lion, then ...”	29
Figure 9: The metaphor, “if one compares a mother with a lioness, then...”	30
Figure 10: The metaphor, “if one compares a nation with a lion, then...”	30
Figure 11: Dimensions of the nature of quality.....	36
Figure 12: Quality as a three-dimensional, multi-factor third-order construct....	37
Figure 13: Determination of a person (“subject”) who evaluates the quality of an object	39
Figure 14: Subjective requirement criteria (“expectation”) relating to the quality of an object.....	40
Figure 15: Specific and holistic determination of the quality of an object.....	41
Figure 16: Schumpeter’s types of innovation from a modern viewpoint (Faix 2008).....	58
Figure 17: Types of innovation.....	60
Figure 18: Innovation-oriented self-interpretation in all departments of a company	73
Figure 19: Innovation-oriented self-interpretation in all areas of a company	74
Figure 20: Definition of InnovationQuality as a three-dimensional, multi-factor construct of the third order	78
Figure 21: Quality and InnovationQuality	81
Figure 22: The complete innovation value chain.....	97
Figure 23: Corporate InnovationQuality “Corporate-InQ”	99
Figure 24: The main criteria of the EFQM Excellence Model	112
Figure 25: Fosters of InnovationQuality.....	113
Figure 26: The laying down of innovation objectives as a prerequisite of InnovationQuality	115
Figure 27: The preceding causal positioning of innovation objectives and innovation projects in the InnovationQuality model.....	116
Figure 28: The outcome of InnovationQuality.....	121

Figure 29: A model for InnovationQuality.....	122
Figure 30: Business development in a temporal and causal context	126
Figure 31: The strategic triangle of business and project development (Faix et al. 2008).....	127
Figure 32: The development process of a company or a project.....	128
Figure 33: The development process of InnovationQuality.....	130
Figure 34: The initiation of innovation projects as the first key step in realizing innovation objectives and developing InnovationQuality....	132
Figure 35: Analysis of the current situation	135
Figure 36: Analysis of framework conditions	136
Figure 37: Derivation of strategic concepts.....	137
Figure 38: Dimensions of InnovationQuality project objectives	138
Figure 39: The New as a combination of the existing.....	139
Figure 40: Target setting for value creation resulting from individual projects (InnovationQuality of individual projects) and their cumulative contribution to the overall value creation of the business (Corporate-InnovationQuality).....	142
Figure 41: Motivation for “Improving InnovationQuality” expressed in terms of the actual needs of a company (Rasner, Füsler, Faix 1999).....	144
Figure 42: The steps followed by an innovation.....	146
Figure 43: Milestone setting within the context of the definition and implementation of innovation projects; based on the idea of the “Innovation Value Chain”, Morten T. Hansen and Julian Birkinshaw (2007)	147
Figure 44: The Innovation Helix (Zillner and Krusche 2012).....	153

List of tables

Table 1: Differentiation of “novelties through diffusion,” drawing on the example of product innovations	46
Table 2: Example of radical innovation in keeping with novelty through adoption	48
Table 3: Examples of disruptive innovations and the products, services, processes, etc. they replace	53
Table 4: The development process of a company or project	129
Table 5: The development process of InnovationQuality	131
Table 6: The eight stages of InnovationQuality development.....	151

List of formulas

Formula 1: Value creation expressed by cVIn (relative)	84
Formula 2: Interpretation of the factor cVIn.....	84
Formula 3: Value creation expressed by cVIn (absolute)	85
Formula 4: cVIn (relative) within the context of the business indicator “turnover”	85
Formula 5: cVIn (absolute) within the context of the business indicator “turnover”	86
Formula 6: cVIn (relative) within the context of the business indicator “profit” ..	86
Formula 7: cVIn (absolute) within the context of the business indicator “profit” ..	86
Formula 8: ROIn (absolute)	87
Formula 9: ROIn (relative)	87
Formula 10: Prospective determination of value creation through innovation expressed by “cVIn” (relative)	88
Formula 11: Prospective determination of value creation through innovation expressed by “cVIn” (absolute)	88
Formula 12: InnovationQuality “InQ” (retrospective)	98
Formula 13: InnovationQuality “InQ” (prospective)	98
Formula 14: Corporate InnovationQuality (retrospective)	100
Formula 15: Corporate InnovationQuality (prospective)	100
Formula 16: Definition of a target value for InnovationQuality resulting from an innovation project.....	141
Formula 17: Value creation “cVIn” resulting from an innovation project (relative).....	141
Formula 18: Interpretation of the indicator “cVIn”	141
Formula 19: Value creation “cVIn” resulting from an innovation project (absolute).....	141
Formula 20: The timing of value creation resulting from an innovation project...	145
Formula 21: InnovationQuality “InQ”	148
Formula 22: Value creation “cVIn” (relative).....	148
Formula 23: Interpretation of the indicator “cVIn”	148
Formula 24: Value creation “cVIn” (absolute).....	148
Formula 25: cVIn (relative) within the context of the business indicator “turnover”	149
Formula 26: cVIn (absolute) within the context of the business indicator “turnover”	149
Formula 27: cVIn (relative) within the context of the business indicator “profit”	149
Formula 28: cVIn (absolute) within the context of the business indicator “profit”	149

Foreword

Since as far back as the times of Heraclitus, it has been self-evident and nevertheless true, that nothing is more permanent and nothing is more inevitable than change. The rollercoasters of history, great and small – disasters, blessings, twists and turns, ruin, transition, truncation – the chronicles of time on this planet are full of such developments. Even supposedly “quieter times” are ultimately just phases filled with smaller ups and downs. Change is a constant, and, as such, an intrinsic part of every era and every major challenge. It is something that every being on this planet has always had to – and will always have to – come to terms with.

From the things people say and write these days, one could even think that modern society is confronted by a degree of change never witnessed by any generation before. One also has the impression that, for the first time in history, humankind is facing many unknowns, unlike anything ever previously encountered. Given the scale of political, social and cultural change, given the volume of disruptive invention and new insights, given the number of major natural and manmade disasters that humanity has experienced during its existence, this view of the world should at least be seen in relative terms. Every generation has its own challenges to face, and, as Konrad Lorenz also believed, one thing holds true for every generation: You have to see if you stand or fall.

Without a doubt, however, the rate of change has accelerated in recent decades and the world is (again) witnessing more instability and unpredictability. Without a doubt, people are now living (again) in times of change in which many things (in some areas, possibly all things) are unlike anything that previous generations encountered.

Our world of today seems to be always on the go and moving on to the next development. And as a result, businesses and whole economies have to strive and dare to make evolutionary or even revolutionary changes themselves. The ability and the willingness to innovate means being able to and wanting to allow new things to become a reality – a reality that creates value and thus also adds value. And it is this which dictates the fate of, not just an economy, but also business.