PhD Thesis No 96

The Realization of Attractive Quality

Conceptual and practical perspectives within the TQM system

Johan Lilja

Mid Sweden University
Department of Engineering and Sustainable Development
Quality Technology and Management
SE- 831 25 Östersund, Sweden
+46 (0)70 21 33 754
October 2010

Doctoral Thesis that with the confirmation of Mid Sweden University is presented for public review for the Degree of Doctor of Technology Friday 22 October 2010. The seminar will be held in Swedish.

Research supervisors

Håkan Wiklund, Professor
Department of Technology and Sustainable Development
Quality Technology and Management
Mid Sweden University

Bengt Klefsjö, Professor
Department of Business Administration and Social Sciences
Quality and Environmental Management
Luleå University of Technology

Author

Johan Lilja, Lic.Eng., M.Sc.
Department of Technology and Sustainable Development
Quality Technology and Management
Mid Sweden University
SE-831 25 Östersund, Sweden
Johan.Lilja@miun.se
+46 (0)70 21 33 754

ISSN: 1652-893X
ISBN: 978-91-86073-98-5
Printed by the University Printing Office at Mid Sweden University, Sundsvall
Copyright Johan Lilja

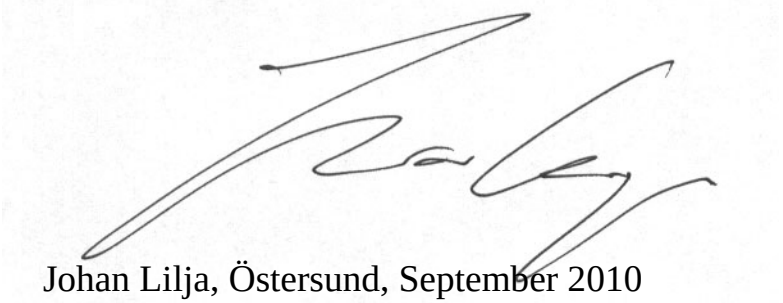
ACKNOWLEDGEMENTS

The journey towards this thesis actually started out at the Division of Quality & Environmental Management at Luleå University of Technology where Professor Bengt Klefsjö provided a most fascinating introduction to the subject area of Quality Management and a great deal of inspiration for my journey to come. Later on, after my Licentiate in Engineering exam in Luleå, I got to continue my journey at the newly established Mid Sweden University in Östersund. While working with this thesis, I have received a great deal of support from people at both these institutions as well as from others including the many PhD students involved in the ProViking national graduate school. I thank you all, no one forgotten...

I would then like to give a special thanks to my primary supervisor, Professor Håkan Wiklund at Mid Sweden University, for your enlightening enthusiasm and never-failing confidence in me. I am also very grateful for the profound knowledge, fast feedback, and considerable advice given by my assistant supervisor, Bengt Klefsjö at Luleå University of Technology. As mentioned, your many discussions and seminars concerning the historical roots of modern quality management truly inspired me.

Furthermore, I would like to thank my dear colleagues and friends at the Mid Sweden University, who have all helped me to improve the content of this thesis and the appended papers during discussions and seminars. In particular I would like to thank you all for enduring, and occasionally seemingly enjoying, my many philosophical discussions concerning issues such as the ultimate aim of, and the political content of, Total Quality Management, not to mention the underlying mechanisms of customer value. Thank you, and please maintain your vision of being, not just another old university but, a new pioneering and interdisciplinary one. I would furthermore like to give a special thanks to my colleagues in Luleå for their absolutely tremendous hospitality, which made the start of this journey such a good one. You always made me feel really welcome.

Finally, I would like to declare my greatest appreciation to my dear Maria and my two beloved daughters Vilma and Linn. You are my love and never-ending inspiration. Without you by my side, this journey would never have taken place.



Johan Lilja, Östersund, September 2010

ABSTRACT

Within the quality community, quality management is often pictured as and referred to as rapidly evolving and continuously learning by interaction with the surrounding world. In general, an ability to evolve and transform is also seen as most desirable and the only choice for long term survival. In line with this picture, quality scholars, consultants, and practitioners strongly accentuate the necessity and great benefits from continuous improvement as well as systematic collection and usage of facts about what customers really value, to guide such improvement. This is reflected in the exhortations "improve continuously", "focus on the customer" and "base decisions on facts", found with minor variations in most modern quality literature. Strong exhortations mainly directed outwards, towards the many leaders and organizations out there. Towards leaders and organizations that still have not grasped the necessity and great winnings from continuous improvement, that are still not fully applying modern quality initiatives like Total Quality Management (TQM).

However, while seemingly being busy exhorting others, doubts have been increasingly raised concerning whether TQM, as currently applied, actually lives up to these exhortations. Does TQM itself continuously improve and evolve? Is the current application of TQM really taking into account facts in the surrounding world about what customers value?

When viewing TQM as a system, as now is commonly done, the problem implied is a lack of system goal fulfillment, questioning if the current TQM system's structure and processes are really purposeful. More specifically the critics highlight the inadequacy of the current reactive one-sided defect avoidance focus, stressing that defects do not matter much if you are making a product no one wants to buy. What can be referred to as "an obsession with error avoidance" is in fact shown to stifle both innovation and value creation.

As for what the TQM system currently is missing, the shortcoming is often referred to as a lack of focus on Attractive Quality. That is, a lack of focus on a different kind of quality elements, often described as being unrelated to the dissatisfaction expressed, but strongly contributing to the customer's positive emotions, such as delight. The inclusion and realization of Attractive Quality has been widely emphasized as important and urgent for more than 20 years. However, a more systematic inclusion and realization within the TQM system has remained no more than merely "a vision". A situation seemingly supporting the argument that TQM really has failed in terms of continuously evolving and improving. An inability to learn and adapt that in the long term will jeopardize the survival of the entire TQM system.

This thesis then aims to move "from a vision to reality" both in terms of exploring the realization of Attractive Quality within TQM, and in a wider sense towards realizing the desired state of TQM as truly evolving and alive. In doing so the thesis addresses the three questions of what, why and how the vision of a more systematic creation of Attractive Quality actually should and could be realized within the system of TQM. Among the results presented in this thesis are a new two-dimensional perspective on Attractive Quality and a re-understanding of the TQM system. The thesis also introduces a new methodology called Attraction Detection Study (ADS) as part of the concluding suggestions about how Attractive Quality could be more systematically created within the system of TQM.

Keywords: Attractive Quality, Total Quality Management, TQM, customer value, Kano Model

SAMMANFATTNING

Inom kvalitetsrörelsen beskrivs, och hänvisas ofta till, kvalitetsledning som ett område i snabb utveckling och ständigt lärande i interaktion med den omgivande världen. Generellt ses också en förmåga till utveckling och förändring som mycket eftersträvansvärd och det enda alternativet för långsiktig överlevnad. I linje med denna uppfattning betonar kvalitetsforskare, -konsulter och -praktiker nödvändigheten och vinsten med ständig förbättring och systematisk insamling och användning av fakta om vad kunder värderar för att vägleda denna förbättring. Detta återspeglas i uppmaningarna ”arbeta med ständiga förbättringar”, ”sätt kunderna i centrum” och ”basera beslut på fakta” som återfinns med mindre variationer i en stor del av den moderna kvalitetslitteraturen. Starka uppmaningar som i huvudsak är riktade utåt, mot de många ledare och organisationer som finns där ute. Mot ledare och organisationer som ännu inte har förstått nödvändigheten och den stora vinsten av ständiga förbättringar, som ännu inte fullt ut applicerar moderna kvalitetsinitiativ såsom offensiv kvalitetsledning (TQM).

Medan man förefallit upptagen med att uppmana andra, har dock alltmer tvivel väckts huruvida TQM i dagens applicerade form lever upp till dessa centrala uppmaningar. Utvecklas och förbättras TQM ständigt? Tar den nuvarande TQM strukturen verkligen hänsyn till fakta i omvärlden om vad kunder faktiskt värderar?

När man ser på TQM som ett system, som nu ofta görs, är det antydda problemet en brist i uppfyllelse av systemmål som ifrågasätter om TQM systemets nuvarande struktur och processer verkligen är ändamålsenliga. Mer specifikt lyfter kritikerna otillräckligheten i den nuvarande reaktiva och ensidiga fokuseringen på att minska defekter och betonar att defekter inte spelar någon roll om du tillverkar en produkt som ingen vill köpa. Vad som kan hänvisas till som ”en besatthet av att undvika fel” visar sig missleda både innovation och värdeskapande.

När det sedan gäller vad det nuvarande TQM systemet saknar, hänvisas ofta till en brist på fokus på Attraktiv kvalitet. Detta innebär en brist på fokus rörande en typ av kvalitetselement som ofta beskrivs som orelaterade till uttalat missnöje men starkt bidragande till kundens starka positiva känslor såsom förtjusning. En inkludering och ett förverkligande av denna Attraktiva kvalitet har nu vida betonats som angelägen under mer än 20 års tid. En mer systematisk inkludering inom TQM systemet har dock stannat vid bara ”en vision”. En situation som ger visst stöd åt påståendet att TQM har misslyckats med att leva upp till strävan mot ständig förbättring och utveckling. En oförmåga att lära och anpassa sig som i ett längre perspektiv äventyrar överlevnaden hos hela TQM systemet.

Denna avhandling syftar således till att gå ”från vision till verklighet” både i termer av att bidra till förverkligandet av Attraktiv kvalitet och i en vidare betydelse till förverkligandet av idealet av TQM som i sanning levande och i ständig utveckling. För att uppnå detta lyfter denna avhandling de tre frågorna vad, varför och hur visionen om ett mer systematiskt skapande av Attraktiv kvalitet skall och kan förverkligas inom TQM systemet. Bland resultaten som presenteras i denna avhandling ingår ett nytt tvådimensionellt perspektiv på Attraktiv kvalitet och en ny förståelse och konceptualisering av TQM systemet. Avhandlingen introducerar även ett nytt arbetssätt kallat ”Attraction Detection Study” (ADS) som en del av förslagen till hur Attraktiv kvalitet mer systematiskt kan realiseras inom TQM systemet.

Nyckelord: Attraktiv kvalitet, Offensiv kvalitetsutveckling, TQM, kundvärde, Kanomodellen

TABLE OF CONTENTS

INTRODUCTION **- 1 -**

1.1 Background - 1 -
1.2 Purpose of the Thesis - 4 -
1.3 Research Questions - 4 -
1.4 Delimitations - 6 -
1.5 Thesis Structure - 7 -

THEORETICAL FRAME OF REFERENCE **- 10 -**

2.1 Structure - 10 -
2.2 Fundamental Concepts - 11 -
2.3 Attractive Quality - 17 -
2.4 Quality Management - 27 -
2.5 Total Quality Management (TQM) - 30 -
2.6 The Lens - A System of Profound Knowledge - 37 -

RESEARCH STRATEGY **- 48 -**

3.1 Introduction - 48 -
3.2 Ultimate Presumptions - 49 -
3.3 Study Area - 50 -
3.4 Paradigm - 51 -
3.5 Methodological Approach - 54 -
3.6 Operative Paradigm - 55 -
3.7 Research Design Quality - 66 -

SUMMARY OF APPENDED PAPERS **- 69 -**

4.1 Paper A - 69 -
4.2 Paper B - 71 -
4.3 Paper C - 74 -
4.4 Paper D - 77 -
4.5 Paper E - 79 -
4.6 Paper F - 82 -
4.7 Paper G - 84 -

CONCLUSIONS **- 87 -**

5.1 Research Question 1 - 87 -
5.2 Research Question 2 - 89 -
5.3 Research Question 3 - 90 -
5.4 Conclusions of the Thesis - 94 -
5.5 The Research Process in Retrospect - 96 -

DISCUSSION AND FUTURE RESEARCH **- 98 -**

6.1 A Wider Perspective - 98 -
6.2 Continuing along the Intended Path - 99 -
6.3 Hopes for the Future - 100 -

REFERENCES **- 101 -**

APPENDED PAPERS

APPENDED PAPERS

Paper A: Obstacles to the Creation of Attractive Quality

Lilja, J. and Wiklund, H. (2006)

The TQM Magazine, Vol. 18, No. 1, pp. 55-66.

The paper received the *Emerald Literati Network Outstanding Paper Award 2007*

Paper B: A Two-Dimensional Perspective on Attractive Quality

Lilja, J. and Wiklund, H. (2007)

Total Quality Management and Business Excellence, Vol. 18, No. 6, pp. 667-679.

Paper C: Getting Emotional about Quality: Questioning and elaborating the satisfaction concept

Lilja, J. and Wiklund, H. (2005)

Asian Journal on Quality, Vol. 6, No. 3, pp. 38-55.

Invited for publication. An earlier version of this paper was presented at the 8th QMOD Conference, 29 June-1 July 2005, Palermo, Italy. Published in Proceedings pp. 905-916.

Paper D: Quality Practice and External Customer Value: Critical reflections on the ideal linkage

Lilja, J. and Wiklund, H. (2005)

Presented at the 8th QMOD Conference, 29 June-1 July 2005, Palermo, Italy. Published in Proceedings pp. 281-292.

Paper E: Commercial Experiences from a Customer Perspective: Elaborated, defined and distinguished

Lilja, J., Eriksson, M. and Ingelsson, P. (2010)

The TQM Journal, Vol. 22, No. 3, pp. 285-292.

Invited for publication. An earlier version of this paper was presented at the 10th QMOD Conference, 18-20 June 2007, Helsingborg, Sweden. Published in Electronic Proceedings, Issue 26, No. 57.

Paper F: From Problem to Attraction Detection Study (ADS): Towards a new methodology for quality practice

Lilja, J. and Eriksson, M. (2010)

Presented at the 13th QMOD Conference, 30 August - 01 September 2010, Cottbus, Germany. Published in Electronic Proceedings.

Paper G: The Need for Re-understanding TQM: Introducing the TQM Tree Model

Lilja, J. and Wiklund, H. (2010)

Submitted for publication.

CHAPTER 1

INTRODUCTION

This chapter presents the background to the research area. In addition, the purpose, the research questions, the delimitations, and the structure of this thesis are presented.

1.1 Background

Walter Shewhart, often referred to as the father of modern quality philosophy (see e.g. Garvin, 1988; Bergman & Klefsjö, 2010), clearly accentuated the subjective measures of quality, that is what the customer "thinks, feels, or senses as a result of the objective reality" (Shewhart. 1931, p.53), as determining the commercial interest of an offer. However, in the very same section, he limited his further considerations to obtaining objective quality in terms of conformance to standards. This contradiction has remained and become a somewhat characteristic feature of quality management. Although focusing on the customer is generally stressed as being a most fundamental part of practicing modern quality management in terms of, for instance, the system of Total Quality Management (TQM) (see e.g. Kennerfalk, 1995; Evans & Lindsay 1996; Hellsten, 1997; Sila & Ebrahimpour, 2002), quality practice and research has principally remained focused on the internal perspective and objective quality. Using a distinction between the "output perspective" (i.e. how customers evaluate quality) and the internal "process perspective" (i.e. how an organization improves and obtains quality), quality research generally adopts an internal "process perspective" as argued by Nilsson (2002). The situation is clearly problematic as both quality and the very goal of applied modern quality

management in terms of TQM are now generally defined in terms of the output perspective. Most modern quality definitions recognize, for instance, that quality should be valued by the customers (e.g. Oakland, 1989; Tenner & DeToro, 1992; Shiba et al., 1993; Dahlgaard et al., 1994; Bergman & Klefsjö, 2010). The very aim or goal of TQM is in the same sense stated in terms such as to increase internal and external customer satisfaction, see for example Hellsten & Klefsjö (2000). An accurate and updated understanding of the output perspective, that is how customers evaluate quality and value, is hence a prerequisite for practicing modern quality management. Both in terms of understanding and measuring quality as well as choosing how to realize it in terms of the structure and processes of TQM. Consequently, advances in the understanding of the output perspective are of utmost importance and should be reflected in TQM in order to keep it alive, vital and truly valuable to the organizations applying it.

One such essential advance appeared during the 1980s in terms of the so called "Kano Model" (Kano et al. 1984; Kano et al. 1996); a model clearly illustrating that there is more to quality than the avoidance of defects and the capturing of outspoken customer dissatisfaction. Shortly afterwards, Kano (1987) also presented what could be understood as "a vision of Attractive Quality", when arguing for a more systematic focus on the creation of "attractive quality elements". These are the type of quality elements introduced as part of the Kano Model, described as unrelated to the outspoken dissatisfaction, but strongly contributing to the customer's positive emotions.

A realization of this vision of Attractive Quality has since then been strongly advocated in many contexts (see e.g. Joiner, 1996; Silverman & Propst, 1999), and a number of researchers have emphasized the importance of adding a focus on attractive quality creation in practice (e.g. Ting & Chen, 2002; Kano, 2001; Tan& Shen, 2000; Matzler & Hinterhuber, 1998). A growing criticism also points at the inadequacy of a one-sided defect avoidance focus both within and outside the quality management community (e.g. Clifford, 2001; Johnson, 2002; Bergman & Klefsjö, 2010). It is for instance widely acknowledged that freedom from defects does not necessarily make a product attractive or even saleable. According to Kondo (2000) some products sell very well even if they are the subject of many complaints because they are highly attractive to customers. Clifford (2001) presents the issue by arguing that lack of defects doesn't matter much if you're making a product no one wants to buy. What can be referred to as "an obsession with error avoidance" is in fact shown to mislead both innovation and value creation as argued in the case of TQM methodologies by Goh (2002) and for a long time within innovation management (Schumpeter, 1934). These examples and others (e.g. Pyzdek, 1999a, 1999b, 1999c; Johnson, 2002; Cole, 2003; Foley 2004) point to the existence of a growing criticism and an apparent need to realize the vision of Attractive Quality. In other words it would appear

to be urgent to clarify and finally link the “output perspective” (i.e. how customers evaluate quality) more strongly to the internal “process perspective” (i.e. how an organization improves and obtains quality) in TQM. Drawing on experience from Volvo Cars, Dahlsten (2003) points at the need for clarity in terms of a general confusion in many organizations concerning the very target of TQM in terms of what creates customer value. Concerning the weak link, Dahlsten (2003) furthermore observes that the current cost-oriented quality practices actually might take precedence over the genuine satisfaction of the customer. In much the same sense, Woodruff (1997) even claims that TQM, in its current form, doesn’t really contribute to superior customer value, but will have to be complemented with a new set of “tools of customer value” to really contribute to the competitiveness of an organization.

With a strongly expressed need, as here argued, and now with a period of more than 20 years passed by since the “vision of Attractive Quality” was first presented, doubts have naturally been raised concerning whether TQM actually lives up to its own widely spread exhortations. Exhortations commonly directed outwards in terms of “continuously improve”, “focus on customers”, and “base decisions of facts”. Does TQM itself continuously improve and evolve? Is the current setup of TQM really taking into account facts in the surrounding world about what customers value? As time goes by without any real attempt at realizing this vision, we find ourselves in a situation where TQM itself actually has failed in continuously evolving and improving. An inability to learn and adapt that in the long term will jeopardize the survival of the entire TQM system.

This thesis then aims to move “from a vision to reality” both in terms of exploring the realization of Attractive Quality within TQM, and in a wider sense towards realizing the desired state of TQM as truly evolving and alive. In doing so the thesis addresses the three questions of what, why and how the vision of Attractive Quality actually could be realized within the current system of TQM.

1.2 Purpose of the Thesis

The purpose of this thesis is to explore the phenomenon and vision of Attractive Quality in order to strengthen the ability to decide whether to realize it. In doing so the thesis approaches the phenomenon and vision of Attractive Quality with the three critical questions of what, why and how? The specific purpose then becomes to provide clarifying insights concerning what the currently vague vision of Attractive Quality (AQ) really implies, why it should be realized, and how it could be realized within the existing system of Total Quality Management (TQM), see Figure 1.1 below.

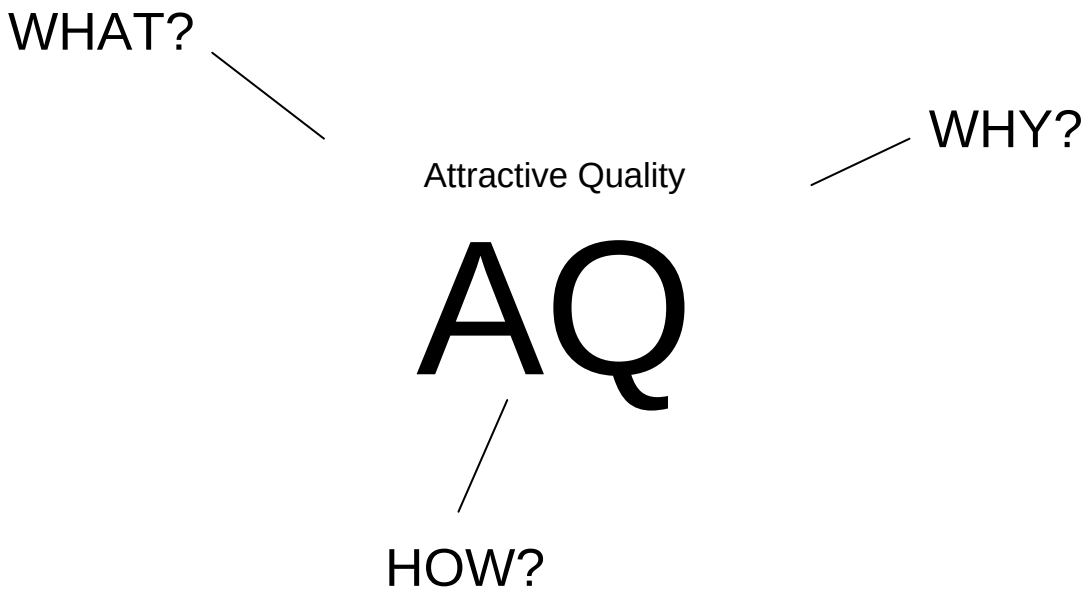


Figure 1.1 The purpose as exploring the phenomenon and vision of Attractive Quality (AQ)

1.3 Research Questions

Three research questions have been formulated in order to further specify the intended focus of the thesis.

RQ1: What does the concept of Attractive Quality really imply?

RQ2: Why should Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?

RQ3: How could Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?

The anticipated knowledge contributions related to these research questions are listed in Table 1.1 below.

Table 1.1 Research questions of the thesis and the anticipated knowledge contribution.

Research Question	**Anticipated Knowledge Contribution**
(1) What does the concept Attractive Quality really imply?	Advanced understanding of the concept of Attractive Quality
(2) Why should Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?	Well-founded arguments for a more systematic creation of Attractive Quality within the existing quality management system of TQM
(3) How could Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?	Proposals of how the creation of Attractive Quality actually could be realized within the existing quality management system of TQM

The first research question addresses a prerequisite for being able to examine the other two. It is simply a matter of clarifying the substance and target of the proposed vision of Attractive Quality. The second research question then addresses the most central issue of why this vision actually should be realized and the search for convincing arguments to do so. Finally, the third research question focuses on the possible impact of such a realization within the existing system of Total Quality Management (TQM), following the tradition of provisioning a methodology for use, i.e. practices and techniques, which often is stressed as a strength of quality management in general (e.g. Spencer, 1994; Woodruff 1997)

1.4 Delimitations

The author has made the following delimitations of the research accounted for in this thesis:

- The exploration of the concept of Attractive Quality is mainly focused on a customer perspective in terms of how customers actually respond to "attractive quality elements" and the underlying mechanisms of such a response. This delimitation has been made as a deep understanding of the customer perspective is considered a highly essential prerequisite for the actual creation or realization of the Attractive Quality within an organization.

- The exploration of how Attractive Quality can be more systematically created within the TQM system is mostly focused on the generation and exploration of new methodologies and tools. This delimitation has been made since the tools and methodologies of the TQM system are considered fundamental enablers for putting the creation of Attractive Quality into systematic practice in an organization applying TQM.

- The research presented in this thesis focuses mainly on a conceptual perspective. This delimitation is a consequence of the research design chosen and considered most fruitful in addressing and contributing to the three research questions of the thesis. This delimitation does however not delimit the results from practice, or from substantial practical implications. A number of empirical studies has furthermore been conducted as part of the research process, as seen in Section 3.6.

1.5 Thesis Structure

The structure of the thesis is briefly presented below and in Figure 1.2.

Chapter 1: **Introduction.** This initial chapter consists of the background to the research questions. In addition, the purpose, the research questions, the delimitations, and the structure of the thesis are presented.

Chapter 2: **Theoretical Frame of Reference.** In this chapter, the theoretical frame of reference is presented and discussed. A system perspective on TQM is presented together with the concept of Attractive Quality. The chapter also includes related theories concerning systems, variation, knowledge and psychology.

Chapter 3: **Research Strategy.** This chapter presents the chosen research strategy. It includes a description and discussion of aspects related to the chosen research approach and process.

Chapter 4: **Summary of Papers.** In this chapter the seven appended papers are summarized under the headings purpose, methodology, findings, practical implications, and value.

Chapter 5: **Conclusions.** This chapter presents the conclusions with respect to the three research questions of the thesis. General conclusions of the thesis are also presented.

Chapter 6: **Discussion and Future Research.** The final chapter addresses what is to be hoped for in terms of the focus of future research and discusses the research in a wider perspective.

Appendix: **Appended Papers**. The Appendix contains the seven appended papers of the thesis.

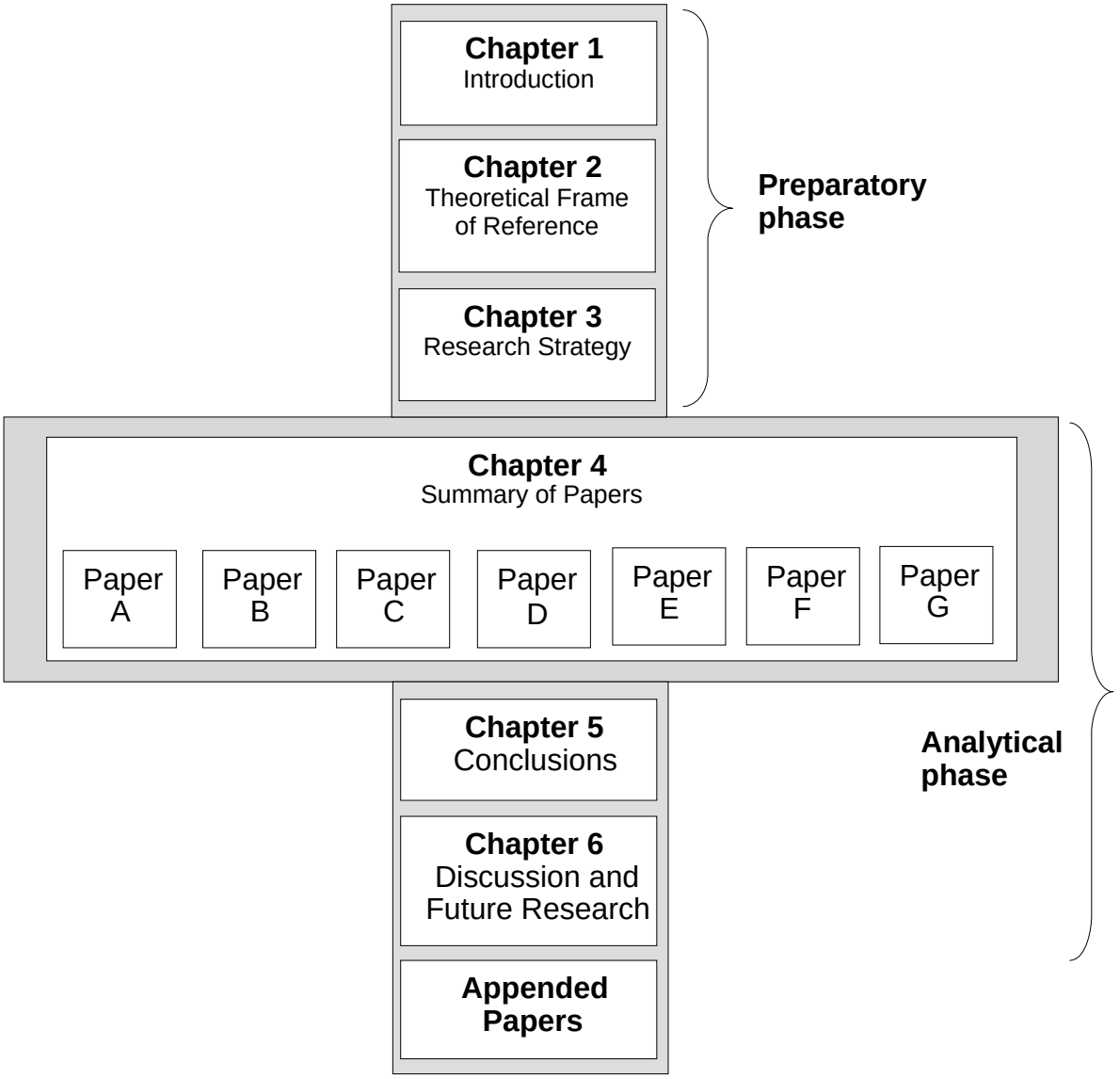


Figure 1.2 *The figure illustrates the structure of this thesis with its six chapters and appended papers. The first three chapters, labeled as the preparatory phase, serve as a foundation for the following analytical phase.*

The thesis is basically structured around the seven appended papers, Paper A to Paper G, which are summarized in Chapter 4. The initial three chapters, in Figure 1.2 labeled as the preparatory phase, describe the foundation of these papers in terms of the aim of the research, relevant and acknowledged perspectives on the subject area of interest, and the strategy that guided the research. The specific results or findings from each paper are then presented in Chapter 4. Finally, the last two chapters summarize the conclusions from the appended papers, in relation to the research questions and present ideas for future research. The connection between the research questions and the papers is further displayed in Figure 1.3.

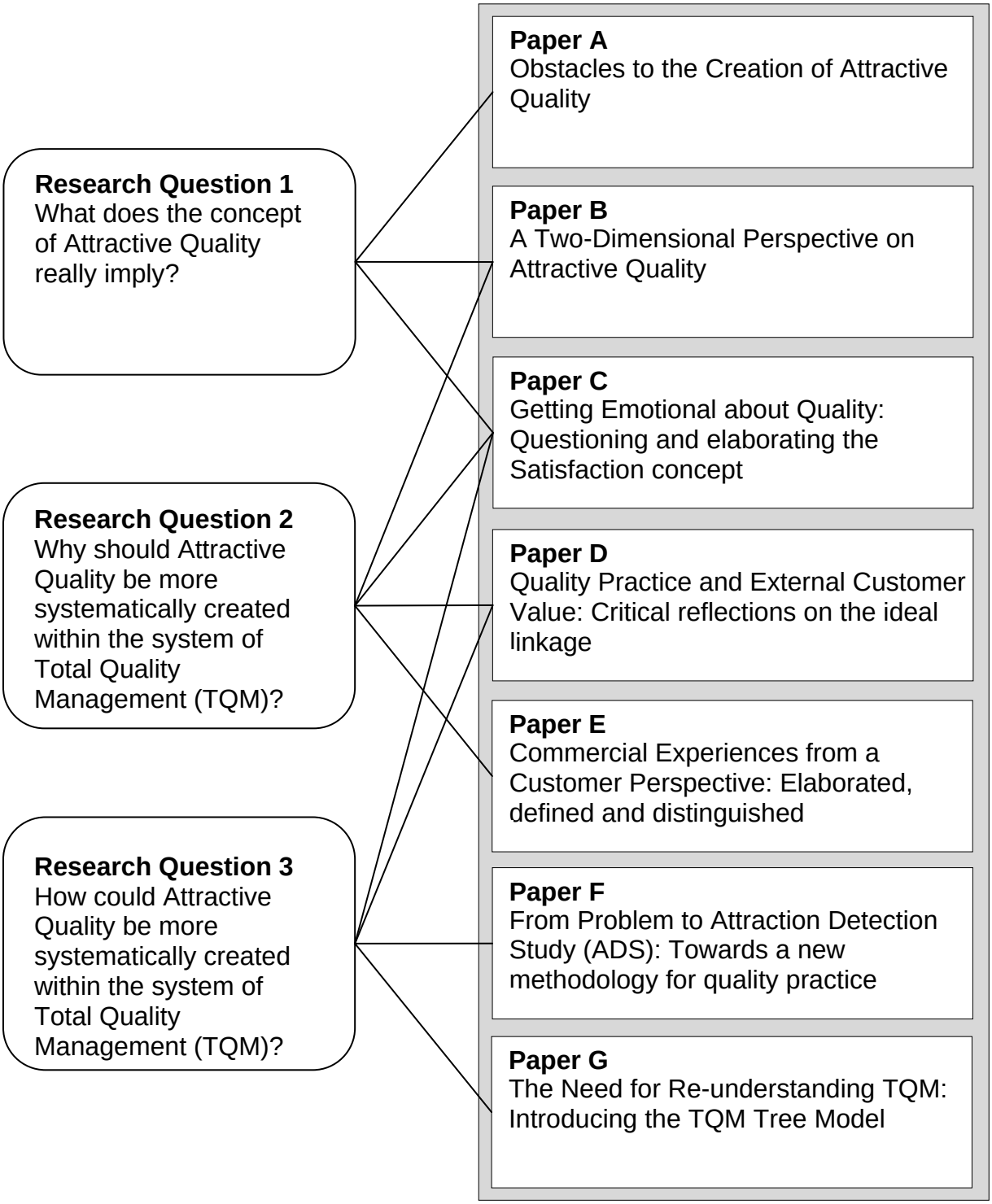


Figure 1.3 An illustration of the relation between the research questions and the appended papers of the thesis.

Figure 1.3 visualizes a complex pattern of relationships. It can however be noted that the three research questions are addressed by the papers A-G in a somewhat gradual order.

CHAPTER 2

THEORETICAL FRAME OF REFERENCE

In this chapter the theoretical concepts and theories relevant to the thesis will be presented.

2.1 Structure

The theoretical frame of reference of this thesis is structured into five main sections as illustrated in Figure 2.1. The chapter opens with a section discussing "fundamental concepts", which serves as a basic foundation for the reasoning in this thesis. The following section introduces Attractive Quality, which is a central concept in this thesis, followed by "Quality management" and "Total Quality Management (TQM)" that accounts for the context and the system in which the phenomenon is explored. Finally the section "The Lens – A System of Profound Knowledge" introduces a chosen set of perspectives and theories related to the phenomenon at focus.

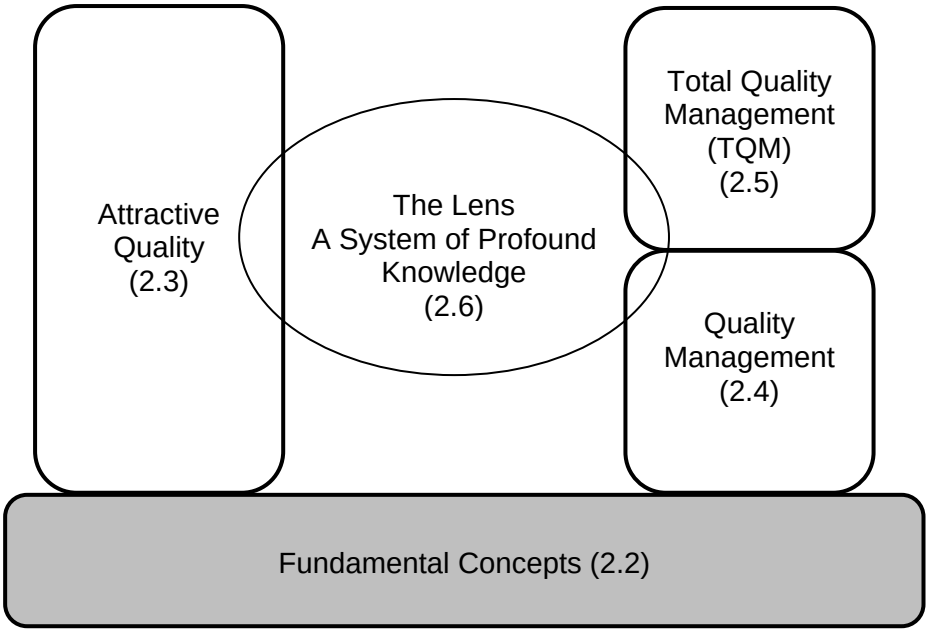


Figure 2.1 An illustration of the structure of the theoretical frame of reference. The fundamental concepts are used as a foundation upon which the concepts of Attractive Quality, quality management, and TQM are built. Furthermore, the lens then functions as an external view of the phenomenon at focus.

2.2 Fundamental Concepts

This initial section aims to introduce and discuss some fundamental concepts used. The argumentation starts with the essential concept of "competitive advantage" and then progress via "customer value" and "superior customer value" towards "quality" and finally "customer".

Competitive Advantage

The incentive for implementing quality management initiatives, like Total Quality Management (TQM), is ultimately that it contributes to increasing competitiveness and profitability. Dahlgaard et al. (2002, p.17) clearly accentuate this in arguing that "quality is a philosophy with dimensions and can be summed up as 'doing things properly' for competitiveness and profitability". Deming and Juran argued similarly that the objective of quality management was 'survival through profitability' (see discussion in Hellsten, 1997). The ideal connection or linkage between TQM and competitiveness is hence very explicit. For a more thorough discussion of TQM and organizational performance, see Eriksson (2003).

Focusing on the competitive advantage concept more specifically, many discussions and definitions of competitive advantage in the literature tend to focus on an internal perspective of the organization in terms of advantage through skills and resources that the competitors do not have, i.e. there must be a capability gap (see e.g. Grant, 1991; Prahalad & Hamel, 1990; Barney, 1986). Competitive advantage is, however, ultimately a matter of customer perception, something that exists in the mind of the customers. In other words, for a business or organization to enjoy a competitive advantage, the difference(s) between the organization and its competitors must make a difference to the customer, as stated by Coyne, (1986). Unique resources (assets) and distinct skills (capabilities) are hence of importance for competitiveness only if they lead to superior value in the "mind of the customer". The core of competitive advantage can also be described as being perceived as positively different from your competitors, more specifically to "differentiate". Porter (1985) explained this strategy as being unique in your industry along some dimensions that are widely valued by the buyers. It should be noted that the means for differentiation are peculiar to each industry. Differentiation can be based on the product itself, the delivery system by which it is sold, the price, the marketing approach, and a broad range of other factors. One feature frequently used for differentiation is the price, categorized by Porter (1985) as a unique strategy. In wider terms, however, offering a lower price than the competitors is one way to differentiate among others, as argued by, for instance, Sharp & Dawes (1996). Differentiation, in some form, can be argued as a prerequisite for competitiveness. As emphasized by Trout & Rivkin (2000), you ought to give the customer some reason to choose your product instead of others. The fact that the customers perceive your offer as deviating positively from the competitors' is what constitutes competitive advantage. In sum, as stated by Porter (1985, p.3), "Competitive advantage grows fundamentally out of value a firm is able to create for its buyers...". Such a perspective is also acknowledged in this thesis as illustrated in Figure 2.2.

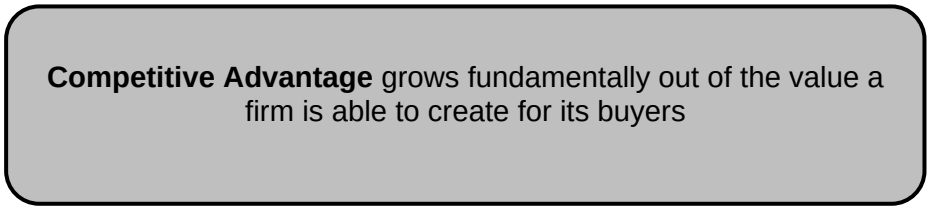


Figure 2.2 Perspective of competitive advantage acknowledged in this thesis. From Porter (1985, p.3).

Value

Value, commonly also referred to as customer value, hence appears as "the key" to competitive advantage. The concept of value is furthermore one of the most fundamental concepts in modern quality management and TQM. But as observed by Woodruff (1997) and Parasuraman (1997) definitions of this construct are somewhat ambiguous, typically referring to terms such as utility, worth, benefits and quality that are themselves not well defined. However, a review made by Park (1999) shows that value is generally defined in terms of a "value-ratio", which is as a ratio of function over cost. Monroe (2003) further elaborates this ratio when describing value as a mental trade-off between the benefits perceived in the product or service in relation to the total perceived sacrifice of acquiring and using the product or service.

This mental trade-off has historically been visualized in value maps such as the one in Figure 2.3. A value map illustrates the way a customer trades off perceived benefits against the perceived price for different offers. The map further implies that competitors who are positioned to the right of the diagonal line are likely to gain market share as they provide a higher value in terms of a higher perceived benefits to perceived price ratio. However, according to Monroe (2003) the traditional understanding seen in the value map should be modified. One reason is that price may be perceived both as a benefit or sacrifice. Sacrifices are further likely to include a number of different aspects in addition to the traditional price, such as the frustration of failures or frequent need of maintenance, as elaborated by, for instance, Zeithaml (1988). An example motivating these modifications is the high price of a Rolex being one of its most essential benefits thus enabling the customer to use the product as a marker of wealth and success.

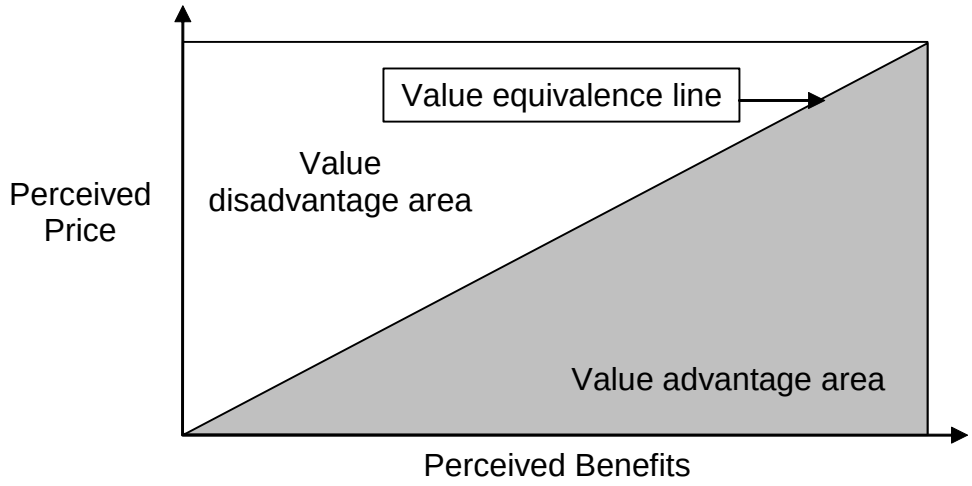


Figure 2.3 A traditional value map visualizing the value ratio. Modified from Leszinki & Marn (1997, p. 101)

A natural proceeding step, given this value perspective, is then to understand the nature of perceived benefit and perceived sacrifice, which are highly individual basically since perception depends on the meaning we give to the stimuli we are exposed to (Foxall et al., 1998). However, on a comprehensive level, perceived benefit and sacrifice are closely related to enrichment of meaning and problem solving, respectively (Antonides & Raaij, 1998). Problem solving refers to the avoidance or neutralization of negative affect and enrichment of meaning to the increase of positive affect.

The understanding of customer value has generally developed from a traditional dominance of cognitive mechanisms of customer value towards the recognition of emotional ones. The development can be seen as from a solely cognitive perspective, via a two-dimensional approach to customer value, with a frequent distinction between feeling appeal and thinking appeal (or factual appeal) (Holbrook & O'Shaghnessy, 1984; Liu & Stout, 1987; Bagozzi et al., 1999). The thinking appeal encompasses "logical, objectively verifiable descriptions of tangible product features", while the feeling appeal encompasses "emotional, subjective impressions of intangible product features". However, according to Rossiter & Percy (1987), the separation into rational and emotional seems unfortunate basically since emotional applies to all types of motives. What traditionally have been referred to as rational motives in contrast with emotional ones just seem to relate to negative emotions, more specifically relief by problem removal, contentment from problem avoidance, and so forth.

In sum, the perspective on value acknowledged in this thesis is the one argued for by Monroe (2003) as seen in Figure 2.4.

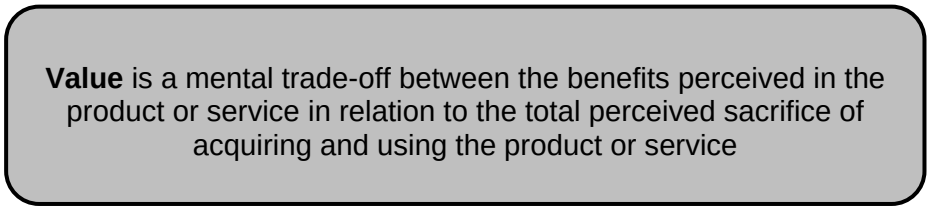


Figure 2.4 Perspective of value acknowledged in this thesis. From Monroe (2003).

Superior Value

Being superior depends upon the comparisons customers make between competitors. This is accentuated in Porter's description of superior value (Porter, 1985, p.3) "superior value stems from offering lower prices than competitors for equal benefits or providing unique benefits that more than offset a higher price". This description is further directly related to the terms on the axes in the value map as seen in Figure 2.3, accentuating the two basic ways of offering superior

value. When applying the perspective on customer value as acknowledged in this thesis, seen in Figure 2.4, superior value then stems from offering lower sacrifice than competitors and providing equal benefits or providing unique benefits that more than offset a higher sacrifice. In sum, the perspective on superior value acknowledged in this thesis, as seen in Figure 2.5, conforms to the perspective by Porter (1985) with the widening of the "price" or cost concept in accordance to Monroe (2003).

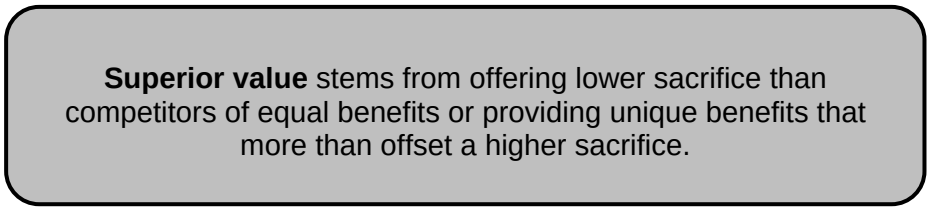


Figure 2.5 Perspective of superior value acknowledged in this thesis. From Porter (1985, p.3) modified in accordance to Monroe (2003).

Quality

Different definitions of quality have been proposed in response to the changing demands of business (Reeves & Bednar, 1994). The increasingly intense competition seems, however, to have caused a general shift of interest from the producers' point of view, which goes under such names as manufacturing-based quality (Garvin, 1984), objective quality (Shewhart, 1931) and production management quality (Steenkamp, 1990), towards perceived or subjective quality. Most modern quality definitions recognize that quality should be valued by the customers and always be put in relation to their needs and expectations (e.g. Oakland, 1989; Tenner & DeToro, 1992; Shiba et al., 1993; Dahlgaard et al., 1994; Bergman & Klefsjö, 2010). Edvardsson et al. (1994) further argue that quality is a matter of finding out what creates value for the customer and achieving it. Dale (2003) supports this notion when stating that the focus of the quality definition is adding value. Similar wordings are also found in practice, Federal Express states, for instance, that "quality is the presence of value defined by customers". Garvin (1984) pointed at such a value-based quality perspective as one of five co-existing approaches to the quality concept, relating quality to cost and price. A value perspective seems further to be taken by Feigenbaum (1991), stating that quality is about establishing a proper balance between the cost of the offer and the customer value it renders. Note, however, that Feigenbaum then separates cost from value. When including cost or price as a component in the value-ratio, as is more commonly done, quality can then simply be seen as the ability of a product or service to create value. This definition can be seen as including the frequent wordings referring to the ability to satisfy human wants or meeting or exceeding expectations (see e.g. Bergman & Klefsjö, 2010, p.23; Dahlgaard et al., 2002, p.19). These wordings can in fact

be seen as referring to some different underlying mechanisms involved in generating value.

In sum, quality and value are closely related and the distinction between them lies in the fact that while value is a perception, quality concerns the ability of a service or product to create such a perception. In this thesis, quality is then acknowledged as the "ability to create value", as seen in Figure 2.6. In accordance to Garvin (1984) this is a value-based perspective, inspired by the perspective on the essence of quality by Edvardsson et al. (1994) and Dale (2003). As a consequence of this perspective the quality of, for instance a product, is seen as its ability to create value.

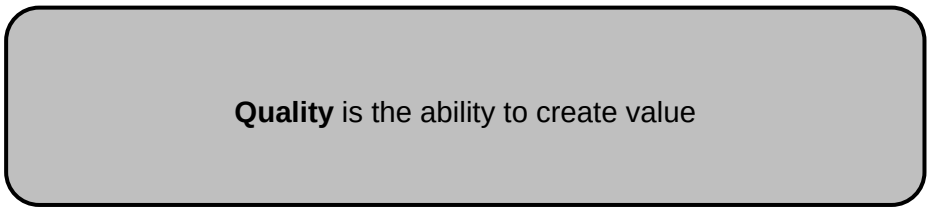


Figure 2.6 Perspective of quality acknowledged in this thesis

Customer

Within quality management value is most frequently discussed in terms of value created for the customer. However, the meaning given to the concept "customer" varies considerably. It has for instance been given a narrow definition in the ISO 9000:2000, where the customer is limited to the one who "receives a product". On the other hand quality is given a really wide definition by Juran & Gryna (1988, p.23) in proposing that a customer is "anyone who is affected by the product or by the process used to produce the product".

An advantageous perspective for this thesis, somewhat between these two, is the simple definition proposed by Bergman & Klefsjö (2010, p.28) stating that "those we want to create value to are our customers". This formulation is preferred as it can cover both internal and external customers and directly relates to the creation of value.

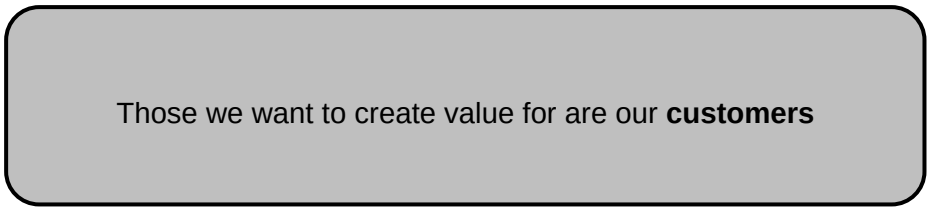


Figure 2.6 Perspective of quality acknowledged in this thesis. From Bergman & Klefsjö, (2010, p.28)

It should be noted that the perspectives chosen above should preferably be understood as perspectives and not definitions. One thing that is certain is that the concepts used to describe the evolving TQM system have to evolve continuously as well. However, the perspectives specified above are found instrumental and acknowledged in the context of this specific thesis.

2.3 Attractive Quality

The following section will introduce a concept most fundamental for this thesis, namely "Attractive Quality", a concept originating from the Kano Model.

The Kano Model

The Kano Model is often referred to as a fruitful mental model for deeper understanding of how customers evaluate a product or an offering (see e.g. Tan & Shen, 2000; Bergman & Klefsjö, 2010; Magnusson et al., 2003). The model was originally introduced by Kano et al. (1984) in a Japanese article based on former ideas of Kano & Takahashi (1979). The model was then subsequently introduced in English by Kano et al. (1996).

The purpose of the model is to bring new perspectives to, and try to explain, the correlation between objective quality (independent of the existence of man) and subjective quality (what we think, feel, or sense as a result of the objective reality) as defined by Shewhart (1931). In doing so, Kano et al. (1996) propose a new two-dimensional recognition of quality. This recognition includes the idea of five distinguished categories of quality elements as specified in Table 2.1. As specified, the relationship between the "state of physical fulfillment", being objective quality, and the customer's "satisfied feeling", being subjective quality, is proposed as different for each of these five categories of quality elements. The Figure 2.7 that was introduced together with this categorization is now frequently used for illustrating the model, showing, for example, how "attractive quality elements" are unrelated to dissatisfaction. It could be noted however that the figure only illustrates the first three quality element categories: "attractive", "one-dimensional", and "must-be quality elements".

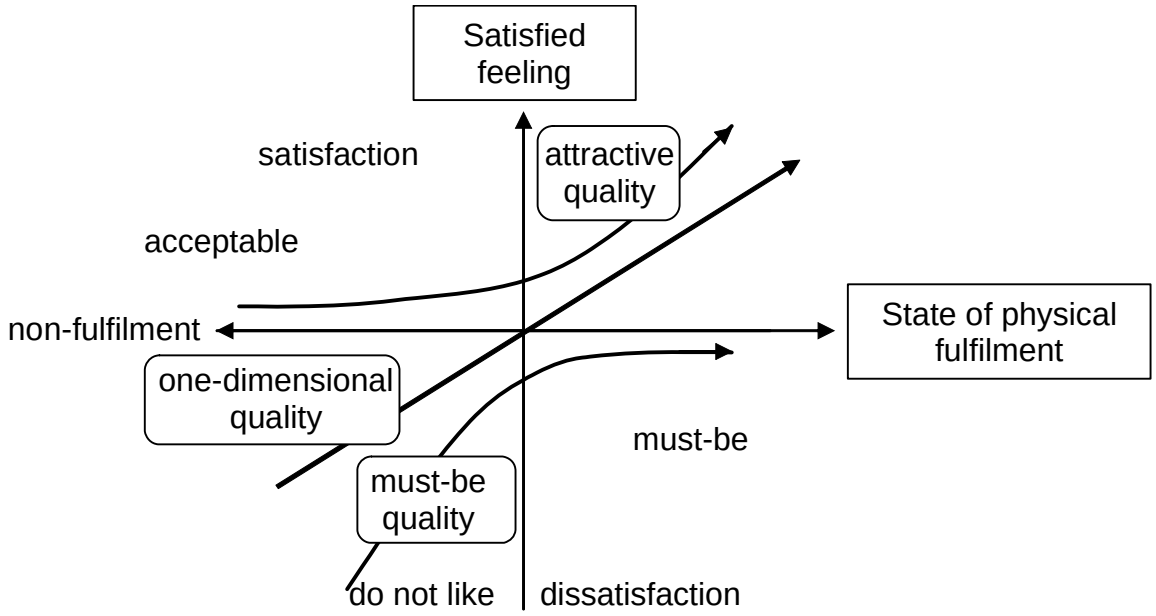


Figure 2.7 The Kano Model as illustrated at its introduction. From Kano et al. (1996, p.64).

In addition, Kano (2001) argues that the customer's perception of quality elements is dynamic, in terms of change over time in a sequence from indifferent, via attractive and one-dimensional, to must-be quality elements. During the past two decades, this theory has gained increasing exposure and acceptance and it has been applied in strategic thinking, business planning, and product development to demonstrate lessons learned in innovation, competitiveness, and product compliance (Watson, 2003).

Table 2.1 The five categories of quality elements defined in the Kano Model. From Kano et al. (1996).

Concept	**Definition**
Attractive quality elements	Quality elements that when fulfilled provide satisfaction but when not fulfilled are acceptable
One-dimensional quality elements	Quality elements that result in satisfaction when fulfilled and in dissatisfaction when not fulfilled
Must-be quality elements	Quality elements that are absolutely expected (taken for granted when fulfilled) but result in dissatisfaction when not fulfilled
Indifferent quality elements	Quality elements that neither result in satisfaction nor dissatisfaction, regardless of whether they are fulfilled or not
Reverse quality elements	Quality elements that result in dissatisfaction when fulfilled and in satisfaction when not fulfilled

The Kano Model was furthermore introduced together with a methodology, now most often referred to as “the Kano Questionnaire” (Kano et al., 1996). This questionnaire made it possible to classify product and service attributes into each of the five categories of quality elements listed in Table 2.1.

Attractive Quality

Focusing on the attractive quality elements in particular, a currently diverse and confused picture emerges. Some examples found in literature, presented in Table 2.2, of descriptions given to the concept of attractive quality elements indicate that the concept is given a number of very different meanings.

Table 2.2 A variety of examples referring to the concept of attractive quality elements indicating a lack of a common concept

Scholar	**Descriptions of attractive quality elements**
Kano et al. (1984,1996)	Quality elements that when fulfilled provide satisfaction but when not fulfilled are acceptable
Ishikawa (1990)	Qualities that are positive advantages of the product, i.e., the special features that make it superior to competing products and can be used as sales points
Berger et al. (1993)	The attractive curve indicates areas in which the customer is more satisfied when the product is more functional but is not dissatisfied when the product is less functional
Matzler et al. (1996)	These requirements are the product criteria which have the greatest influence on how satisfied a customer will be with a given product. Attractive requirements are neither explicitly expressed nor expected by the customer. Fulfilling these requirements leads to more than proportional satisfaction.
Edvardsson et al. (2000)	Surprise and delight attributes that excite or thrill the customer. A consumer is usually not aware of the existence of these attributes prior to finding them in a product, but is very delighted when she discovers them
Kondo (2000)	Refers to the positive features, selling points and characteristics of a product, such as ease of use, that make it superior to the other companies' offerings. The fulfilment of these quality elements provides positive customer satisfaction, although the product quality which does not fulfil these elements is also acceptable.
Kano (2001)	A quality that cannot only be distinguished from the qualities of the current products but also is attractive for customers
Bergman & Klefsjö (2003)	Attractive Quality contains a surprise element and means that excitement needs are satisfied

Some of the descriptions share similarities with competitive advantage and differentiation (e.g. Ishikawa, 1990; Kano, 2001), others refer to the ability to surprise and delight the customer (e.g. Edvardsson, 2000) and still others to the satisfaction of a specific type of need (Bergman & Klefsjö, 2003). Note that the examples are intended to serve as indicators of diversity in understanding, not to give a complete reflection of all literature. Further, looking into details, diversity can actually be found in just about all parts of the Kano Model, as visualized in Figure 2.8, with a disparity of opinions and understanding of the entire Kano Model and its components.

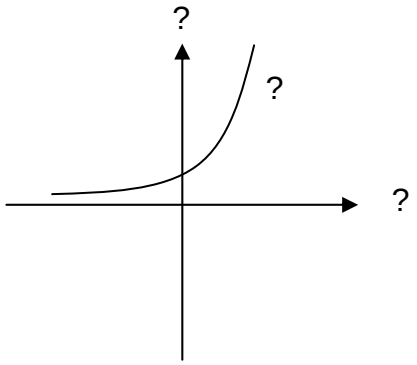


Figure 2.8 The current situation of confusion characterized by disparity of opinions concerning Attractive Quality and the Kano Model.

As illustrated in Figure 2.8 both the entities correlate, that is the labels on the vertical and the horizontal axis, and the attractive quality concept itself, are subjects of a diverse understanding, being given different meanings.

The first disparity of opinions concerns the vertical axis. The label on this axis is of great importance as it indicates the proposed effect of attractive quality elements. Kano et al. (1996) used the term "satisfied feelings". Other representations of the model, however, use "customer satisfaction" (e.g. Bergman & Klefsjö, 2003; Edvardsson et al., 2000) which currently is seen as a construct with both affective and cognitive components as argued by Oliver (1996). Still others use the term "delight" (e.g. Magnusson et al., 2003), which clearly changes the meaning as researchers have found that the drivers of satisfaction and the drivers of delight are not the same as discussed by, for instance, Rust et al. (1994). The different entities used on the vertical axis thus alter both the causes and effects of the attractive quality elements. They have in common the opinion that feelings are part of the attractive quality response; it is not clear, however, what kind of feelings. Delight is for instance seen as a secondary emotion based on surprise and pleasure, which is quite far from the original "satisfied feelings" which in studies have shown to be interpreted as the absence of negative affect (Watson & Tellegen, 1985).

A second disparity of opinions concerns the horizontal axis. As noted, Kano et al. (1996) used the label "state of physical fulfillment" on this axis, aiming to reflect objective quality as defined by Shewhart (1931), "an objective reality independent of man". Others refer to the horizontal axis of the Kano diagram as indicating how "fully functional" some aspect of a product is (Berger et al., 1993), and more interestingly Bergman & Klefsjö (2003) use "degree of achievement" in terms of need fulfillment. This label distinguishes itself by addressing an underlying mechanism to the attractive quality perception. It is

obvious that the state of physical fulfillment of objective quality and the degree of need fulfillment are essentially different. The first focuses on the product itself - what the product has – claiming that different physical attributes of the product can be directly assigned to different customer responses such as the more than proportional satisfaction response assigned to attractive quality elements. Alternatively, the second focuses on – what the customer gets – claiming that the different customer responses correlate with the fulfillment of different needs, which do not necessarily have a one-to-one relationship with physical product attributes.

A third disparity of opinions concerns the very attractive quality concept itself - is it elements, requirements or perhaps needs? As seen, Kano et al. (1996) originally used the term “attractive quality elements”. Berger et al. (1993), on the other hand, refer to attractive quality elements as “attractive requirements”. In addition terms like “delighters” (Pardee, 1996), “surprise and delight attributes” (Edvardsson et al., 2000), and “delighting features” (Kahn, 2001) are used. Others referring to the Kano Model have chosen to refer to attractive quality elements as “excitement needs” (Bergman & Klefsjö, 2003).

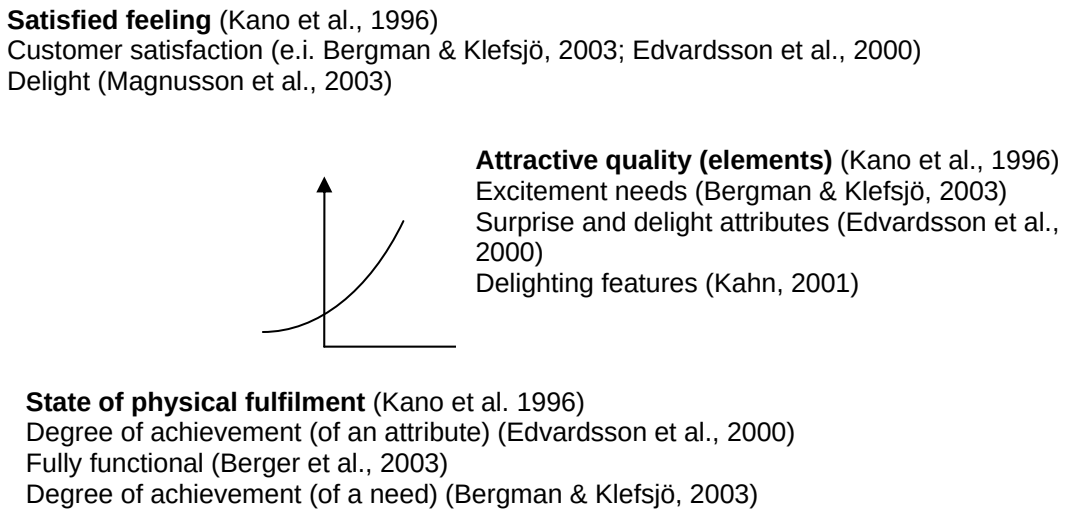


Figure 2.9 Exemplification of the confusion concerning the label on the horizontal and vertical axis as well as the attractive quality concept itself

Hence, there is a situation of confusion concerning the attractive quality concept and the Kano Model in general, as illustrated in Figure 2.9. A mixture of physical elements, customer requirements, needs, emotions and attitudes currently appears in the literature. A situation where different causes, such as needs, and expectations as well as different effects, such as delight and satisfaction, are assigned to attractive quality elements.

Attractive Quality Creation (AQC)

"Attractive quality creation" has for some time been proposed as the next step in quality evolution (see e.g. Joiner, 1996; Silverman & Propst, 1999). Further, a number of researchers have emphasized the importance of attractive quality creation (e.g. Ting & Chen, 2002; Kano, 2001; Tan & Shen, 2000; Matzler & Hinterhuber, 1998). Kano (1987) himself even proposed a focus on attractive quality creation as a fundamental part in a third stage of the development of quality referred to as "Total Quality Creation". Concerning the very concept of attractive quality creation it can generally be understood as the creation of Attractive Quality. The concept has also been defined specifically within the context of product planning and product development by Kano (2001, p.22) as to "create a new product with a quality that cannot only be distinguished from the quality of the current products but also is attractive for customers".

Still, there is no evident progress seen in practice as stated by for instance Kano (2001). Likewise, research focusing on the area of Attractive Quality, and attractive quality creation in particular, remains very limited. The few publications available are mainly restricted to the application and integration of the Kano Model in different contexts (see e.g. Högström et al., 2010, Yu & Yu, 2009; Chen et al., 2009; Chen & Lin, 2007; Kuo, 2004; Ting & Chen, 2002), or the issue of classifying, and understanding the dynamics of, quality attributes as supported by the "Kano Questionnaire" (see e.g. Witell & Löfgren 2007; Löfgren, 2006; Nilsson-Witell & Fundin, 2005; Fundin, 2005). Only a handful of publications found by the author actually relate to the advance of new methodologies or tools for not only identifying, but realizing the creation of Attractive Quality in practice (see Chang & Lu, 2009; Chen et al., 2008; Dahlgaard et al., 2008).

Theoretical Roots

The Kano Model has its declared theoretical roots is the motivator-hygiene theory (Herzberg et al., 1959; Herzberg, 1966, 1987). In short, a theory positing that the factors that cause job satisfaction are very different from those that cause job dissatisfaction. Motivator factors (e.g., recognition for achievement) are proposed as the primary cause of job satisfaction and hygiene factors (e.g., working conditions) as the primary cause of job dissatisfaction.

Herzberg and colleagues found that the motivator factors, that the "attractive quality elements" in the Kano Model are derived from in accordance with Kano (2001), are contingent on intrinsic sources of fulfillment, that is elements within one's psyche. In contrast, the hygiene factors consisted primarily of job context factors, referred to by others in the literature as extrinsic needs as they are elements outside one's psyche.

Surprisingly, this seems to be in contrast to attractive quality elements as presented and defined by Kano et al. (1996). Intrinsic characteristics may even be seen as excluded from attractive quality elements as they are not independent of the existence of man, the term used by Shewhart (1931) when defining objective qualities, which attractive quality elements are proposed to be a part of (Kano et al. 1996). Going further, Herzberg actually argued that the hygiene factors and motivator factors were due to two distinct needs which have parallels with both Maslow's (1943, 1954, 1999) and Alderfer's (1969, 1972) need hierarchy. Schneider & Alderfer (1973) even concluded that Herzberg's motivator factors appear to encompass Maslow's higher-order categories and Alderfer's growth needs. Interestingly, Herzberg's notion of only two need levels is in line with the suggestion made by Maslow in some of his later work, that his original five-level hierarchy might fruitfully be considered as two basic levels of human needs, deficiency-needs and growth-needs (Maslow, 1999). Herzberg et al. (1959, p.114) stress accordingly that motivator factors "satisfy the individual's need for self-actualization". Tracking down the theoretical roots of Attractive Quality in terms of Herzberg's motivator factors, one hence ends up in growth needs as defined by Maslow (1999), in his two-level hierarchy, and later by Aldefer (1972). The three concepts are seen in Table 2.3.

Table 2.3 The theoretical roots of the motivator factors concept that attractive quality elements are deduced from.

Concept	Scholar	Definition
Motivator factors	Herzberg et al. (1959); Herzberg (1987)	Factors that satisfy psychological needs that cause one to grow, satisfy the individual's need for self-actualization
Growth needs	Alderfer (1972)	Needs which involve a person making creative or productive effects on him/herself and the environment
Growth needs	Maslow (1999)	A need for self-actualization

Even though widely recognized, it could also be noted that the motivator-hygiene theory has been heavily criticized for dubious validity and has been rejected by many job satisfaction scholars today (see e.g. Locke, 1991; Pinder 1998).

Related Models

Interestingly, there are several other models based on deductions from Herzberg's motivator-hygiene theory that are more or less similar to the Kano Model. For instance, three such two-factor models concerning quality are noted by Kano et al. (1984, 1996). Three even more similar concept notions are

however presented by Cadotte & Turgeon's (1988) in terms of the "satisfiers", "critical", and "dissatisfiers", or Johnston & Silvestro's (1990) in terms of the "enhancing", "dual", and "hygiene", elaborated in Johnston (1995). Two additional models with considerable overlaps are presented by Levitt (1983) for the total product, and Clemmer (1990, 1992) for service, in the "Rings" model of product/service attribute. The respective rings in Clemmer's three-ring model have been called "musts", "satisfiers", and "delights", implying that provision of the first ring only serves to preclude dissatisfaction. This model also includes the aspect of migration, like the Kano Model, thereby raising expectations as to what the basic service should be. Among the models sharing its roots in the Motivator-Hygiene Theory is also Oliver's (1996) model as seen in Figure 2.10, which according to Rust & Oliver (2000) was conceptualized independently from the Kano Model.

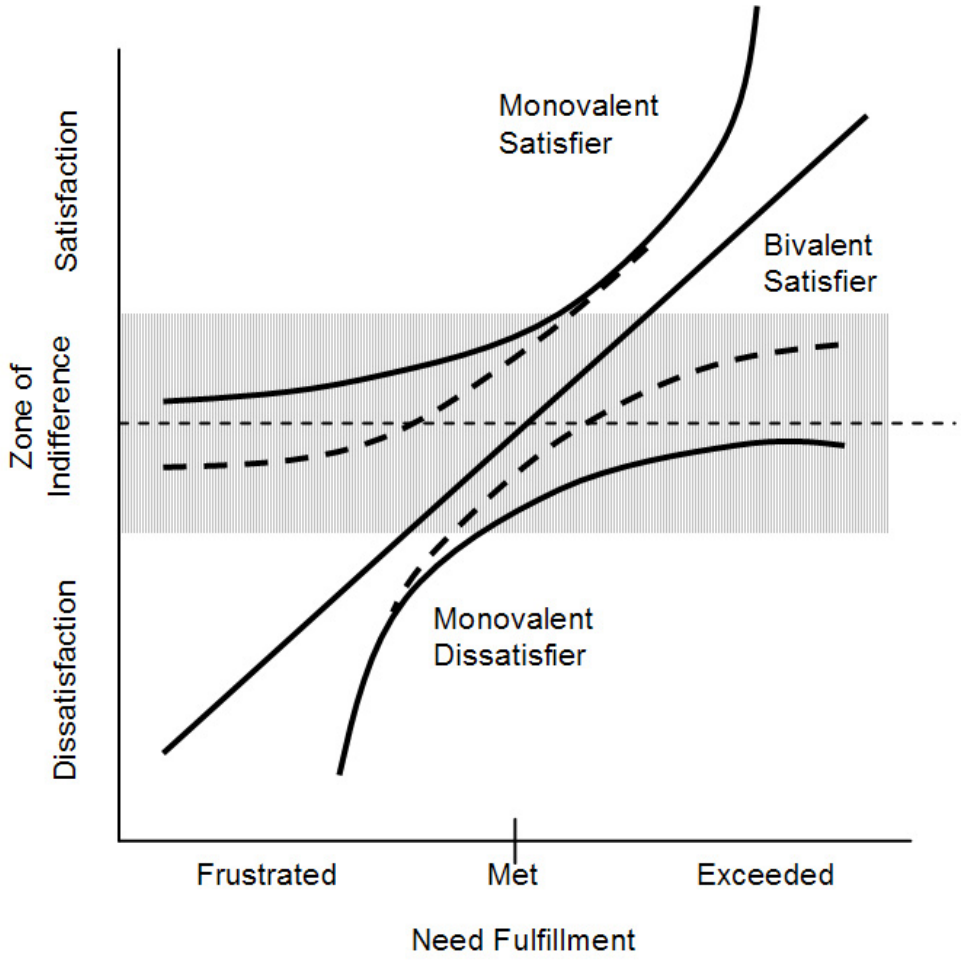


Figure 2.10 A related model based on the motivator-hygiene theory, declared as conceptualized independently from the Kano Model. From Oliver (1996, p.152).

Although the two models proposed by Kano et al. (1996) and Oliver (1996) might seem almost identical at a first glance, a detailed comparison reveals some

significant and interesting differences. One of the most essential is that Kano et al. (1996) focus on what the product has, while Oliver (1996) focuses on what the consumer gets and thereby maintains the need-based perspective from Herzberg's motivator-hygiene theory. Additionally Oliver's model has a shaded "zone of indifference" to illustrate the point at which just-met needs begin to loose their satisfying and dissatisfying properties. Oliver does hence not refer to the three categories as elements but as need categories, more specifically as "monovalent dissatisfiers", "bivalent satisfiers", and "monovalent satisfiers" as further described in Table 2.4.

Table 2.4 The three need categories presented in the related model. From Oliver (1996).

Concept from Oliver (1996)	**Description**
Monovalent Satisfier	Psychological "extras" processed at a higher level of the need hierarchy
Bivalent Satisfier	The upward and downward translatable attributes that can cause both satisfaction and dissatisfaction
Monovalent Dissatisfier	Essential but unprocessed attributes only capable of causing dissatisfaction when flawed

Looking specifically at Oliver's equivalent to attractive quality elements, the "monovalent satisfiers", they are defined in terms of fulfilling needs beyond those at the functional level. "Monovalent satisfiers" satisfy more intrinsic, higher-level needs providing a different type of satisfaction because they enrich the life of the customer. This is in line with a number of other distinctions which are based on the motivator-hygiene theory. One such is suggested by Rossiter & Percy (1987) between problem solving and enrichment of meaning, or informational versus transformational motivations. Another similar distinction is the one between restoration motivation and enhancement motivation as proposed by Oliver (1996). A third similar distinction, proposed by Fennell (1978), is the one between negative and positive motivations.

Central to problem solving, relating to hygiene factors, is then that the attributes of the product prevent or solve a problem. Something negative such as damage or a headache is reduced or neutralized. For enrichment of meaning, that on the other hand relates to the motivator factors, the product attribute must add value to the life of the customer, giving positive and rewarding stimulation. The consequences from problem solving attributes are such as relief and respite while the consequences from enrichment of meaning are such as excitement, pleasure and joy (Antonides & Raaij, 1998). The model proposed by Oliver (1996), does hence suggest that the "monovalent satisfiers" satisfy more

intrinsic, higher-order needs which provide a different type of satisfaction because it enriches the life of the customer.

The explanations in current quality literature concerning the underlying driving mechanism of Attractive Quality refer however to the satisfaction of latent, in terms of unspoken, needs or requirements of the customer. Such an explanation is also proposed by Kano himself (Kano, 2001). This explanation can in fact be seen as being inspired not so much by need-based but by cognitive theory, more specifically from the disconfirmation or comparison standards (CS) paradigm. In general assuming that customers have expectation standards and that the confirmation/disconfirmation of presumed product standards is the essential determinant of satisfaction (e.g. Erevelles & Levitt, 1992; Oliver, 1996). As the attractive quality concept has been increasingly inspired from this paradigm the customer response to attractive quality elements has lately often been referred to as "delight", in terms of a profoundly positive emotional state generally resulting from having one's expectations exceeded to a surprising degree (Oliver et al., 1997). "Delight" and "customer delighted" have for instance replaced the original term "Satisfied feeling" (Kano et al., 1996), in the Kano Model as illustrated by Magnusson et al. (2003) and Chen & Su (2006).

2.4 Quality Management

The following section will introduce the subject area of quality management.

A Young Discipline

Quality management is described as being still in the early stages of theory development (Dale et al., 2001). Seen in relation to traditional sciences such as mathematics and physics, this statement seems adequate. The research presented in this thesis can be seen as part of what Kroslid (1999) describes as the continuous improvement school of thought, committed to the belief in continuous improvement. This, as well as the broader discipline of quality management, is generally seen as originating from Walter Shewhart's work at Bell Telephone Laboratories in the 1920s and the theories of variation in Shewhart's (1931) book Economic Control of Manufactured Products (see e.g. Garvin, 1988; Kroslid, 1999; Bergman & Klefsjö, 2010). The main contributors to this school have according to Kroslid (1999) been Walter Shewhart, Edwards Deming and Joseph Juran. This perspective implies that the discipline of quality management is less than a century old. During this period, the systems for improving and managing quality have evolved rapidly and the discipline of quality management expanded in many ways. Quality has however been a matter of human concern for a longer period of time than the last century. According to Kano et al. (1996), Aristotle (384-322 BC) may have been the first to discuss quality in a systematic way. Most interestingly he also summarized the definitions of quality into two basic meanings, which still are highly

relevant; the two aspects of subjective and objective quality (see Aristotle, 1924). Embedded in this objective-subjective split is the idea that objective quality pertains to "conformance to requirements" or in the words of Shewhart (1931, p.53) "independent of the existence of man", while the subjective quality pertains to the satisfaction of the user, the way the user thinks, feels, or senses.

Five Development Patterns of Quality Management

Five patterns in the continuous evolution of quality management are here highlighted in an attempt to set the stage for the theoretical frame of reference. For alternative discussions of the development patterns, see for instance Dale (2003), Dahlgaard et al. (2002), and Kroslid (1999).

1. One of the evolutionary patterns of quality management most frequently referred to, is a shift of interest from the producers' point of view, towards the consumers' (Kondo, 2000). As a result, quality management has generally come to share the notion of the marketing concept, which holds that the key to achieving organizational goals is to be more effective and efficient than one's competitors in identifying and in satisfying the needs of target markets (e.g., Kotler, 2003). The essence is that a company should identify its customers' needs and adapt its operations to their needs (Levitt, 1960). Such a development is further accentuated in many future perspectives, as by Bergman & Klefsjö (2003, p.558) hoping for a development, "where the customers' needs and expectations will be at the centre of attention in all processes; where the aim will be to find win-win solutions; and where the work with continuous improvement is seen as a natural part".

2. A second pattern, often referred to in academic literature is the one that describes an evolution or expansion of quality management from inspection, via control and assurance, to Total Quality Management, TQM, (see e.g. Dale et al., 2003; Kanji & Asher, 1993). This pattern has strong similarities with models that like to refer to the evolutionary process as one from reactive towards proactive quality management in terms of increasing the efforts before production (e.g. Berryman, 2002). Bergman & Klefsjö (2003) even seem to merge these evolutionary patterns into one, presenting the evolution of quality movement as four phases. The increasing amount of quality work being devoted to the development of goods and services seems to support the notion of this pattern.

3. A third pattern in the development of quality management, related specifically to the continuous improvement school, is described by Kroslid (1999). Kroslid describes the focus of practices having gone from

process towards what can be described as a customer-oriented culture of continuous improvement.

4. Fourth, Kano (1987) proposes a development of quality management in terms of three steps where the third stage of the development focuses on attractive quality creation, in terms of latent needs. His analysis of implementation papers presented in the Quality Circle (QC) conferences, arranged by Union of Japanese Scientists and Engineers (JUSE), between 1955 and 1985, further supports the previous notion of a transition from conformity to specifications towards user satisfaction. A transition of interest from the production stages towards R&D and marketing is also identified, described as a change from "how to make to what to make" (Kano, 1987, p.146). In short, Kano's (1987) analysis points at product planning as the core of quality activities in the future.

5. A final perspective on the development of the quality management is given by Goh (2002). He describes four different quality efforts for performance improvement whose popularity started between the 1940s and 2000s, as illustrated in Table 2.2.

Table 2.2 Quality efforts for performance improvement. From Goh (2002, p.405).

Methodology	**T&I**	**SPC**	**Six Sigma**	**DFSS**
1. *Approach*	Defect detection	Defect prevention	Defect avoidance	Value creation
2. *Method*	Samplings plans	Control charts	DMAIC	IDOV
3. *Focus*	Product	Process	Project	System
4. *Information*	Static	Dynamic	Varied	Uncertainties
5. *Medium*	Observation	Data	Knowledge	Perspectives
6. *Nature*	Passive	Defensive	Active	Pre-emptive
7. *Deployment*	Exit point	Downstream	Midstream	Upstream
8. *Application*	Isolated	On-line	Off-line	Organization wide
9. *Format*	As needed	Continuous	Project by project	Subject by subject
10. *Operation*	Single location	Single function	Cross function	Business wide
11. *Execution*	Prescriptive	Rule-based	Needs driven	Proactive
12. *Criterion*	Conformance	Stability	Optimality	Predictability
13. *Improvement*	Irrelevant	Absent	Incremental	Fundamental
14. *Problems*	Unsolved	Contained	Understood	Anticipated
15. *Solutions*	Unavailable	Ad hoc	Remedial	Built-in
16. *Result*	Damage control	Capability	Sigma level	Robustness
17. *Framework*	Instantaneous	Short term	Long term	Life cycle
18. *Customer reaction*	Acceptance	Satisfaction	Appreciation	Trust
19. *Gains*	None	Confidence	Savings	Profit
20. *Enhancement*	Production	Engineering	Bottom line	Market share
21. *Requirements*	Unsophisticated	Procedural	Organizational	Cultural
22. *Core skills*	Procedures	Analysis	Communication	Synthesis
23. *Leaders*	Technicians	Engineers	Managers	Chief executives
24. *Applicability*	Traditional	Modern	Contemporary	Current
25. *Popularity started*	1940s	1970s	1990s	2000s

KEY: **T&I:** Testing and inspection, **SPC:** Statistical process control, **DFSS:** Design for Six Sigma

Table 2.2 is instrumental as it also relates to the other patterns suggested. For instance, it highlights the fact that the emphasis of quality management has moved upstream through the years, which is closely related to the development towards proactive quality work. It also visualizes a movement from defect detection to value creation, from enhancement of production to enhancement of market share.

Relating this thesis to the five development patterns presented, the thesis essentially aims to increase the ability of quality management to support value creation and increase the predictability of the customers' value perceptions in order to primarily contribute to improvement of upstream activities normally conducted during the early phases of product development and product planning.

2.5 Total Quality Management (TQM)

As described in the second pattern of development, Total Quality Management (TQM) is frequently presented as the currently highest and most comprehensive applied form of quality management. The concept of TQM is a development of Total Quality Control (TQC); a concept first introduced by Feigenbaum (1951) in a book with the same name. The TQC concept did, however, not achieve acceptance as intended in the Western companies. On the other hand, TQC was a 'hit' in Japan, and developed into what the Japanese themselves call CWQC, Company-Wide Quality Control. This is, according to Dahlgaard et al. (2002), identical to what we in the West today refer to as TQM. Describing TQM is however by no means trivial and several of the attempts so far have been fairly vague. Further, as commented by Fredriksson (2004), it is noteworthy that none of the gurus, that is to say Deming, Crosby and Juran, has explicitly used the label TQM for their philosophies.

Describing TQM as a System

Several descriptions of TQM have been presented over the years, some referring to TQM as a corporate culture and vision (Dahlgaard et al., 2002), others describing it as a management approach (Oakland, 1993). A number of authors have also suggested a system approach, among them Shiba et al. (1993), describing TQM as an evolving system, and Hellsten & Klefsjö (2000, p.241) describing TQM as "a continuously evolved management system consisting of values, tools and techniques, the aim of which is to increase external and internal customer satisfaction with a reduced amount of resources". The system perspective of TQM can further be seen as incorporating many of the alternative descriptions found in literature. For a more thorough discussion of the TQM concept, see e.g. Dean & Bowen (1994), Boaden (1997), Hellsten (1997), and Park Dahlgaard (2001). Deming (2000, p.95) defines a system as "a network of

interdependent components that work together to accomplish the aim or goal of the system". Deming (2000, p.96) further emphasizes that "a system must have an aim, without an aim there is no system". This statement implies that the components or elements as well as the aim are fundamental to a system and hence also essential in describing the particular management system TQM.

Six Critical Elements of the TQM system

During the last ten years scholars have approached somewhat of a consensus on the fact that the TQM system is based on six critical elements that could be understood as the most essential "ingredients" in an efficient and effective TQM system. These elements are referred to under different names such as values, key elements, factors, and core concepts. Their relative stability is however supported by the notable similarity between the conclusions of three different attempts to identify them (see Kennerfalk, 1995; Hellsten, 1997; Sila & Ebrahimpour, 2002). These elements can generally be referred to as "focus on customers", "improve continuously", "focus on processes", "let everybody be committed", "top management commitment" and "base decisions on facts", using the formulations of Hellsten & Klefsjö (2000). The critical elements of TQM are further discussed by Kennerfalk (1995), Hellsten (1997), Cameron & Sine (1999), Sila & Ebrahimpour (2002), and Lagrosen (2006). One of the few existing TQM system "models" is the one introduced by Hellsten & Klefsjö in 2000, as seen slightly modified by Bergman & Klefsjö (2003) in Figure 2.11. The model illustrates TQM as a management system made up of values, methodologies and tools where the six critical elements constitute the six "values" of the system.

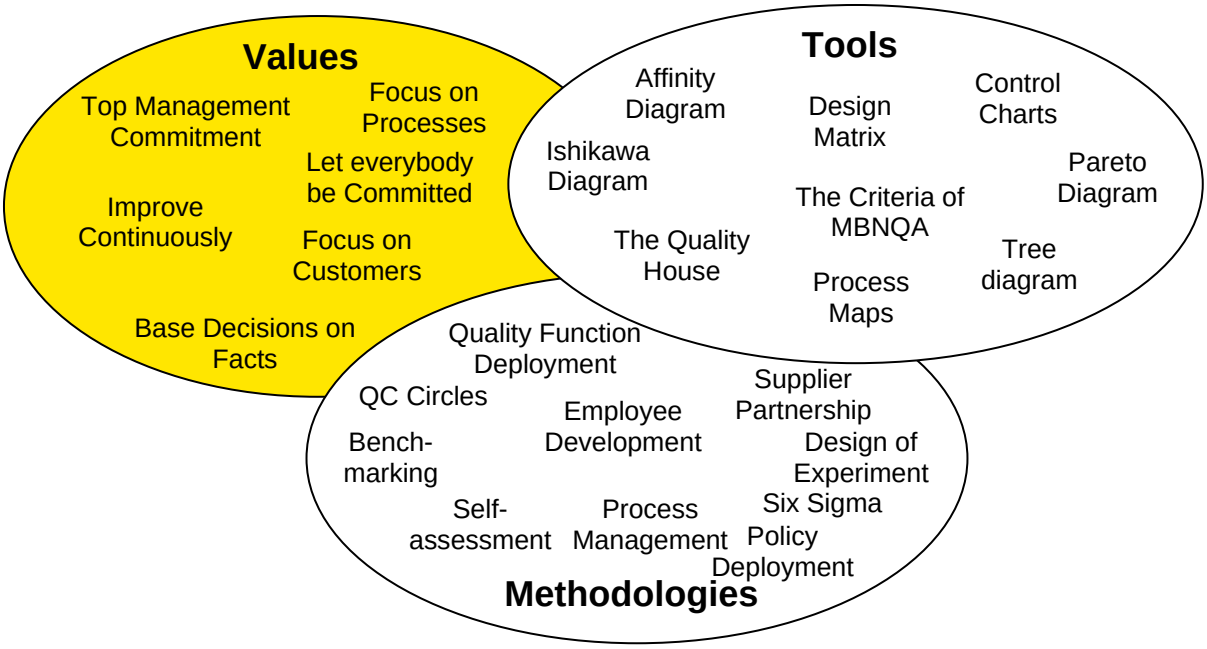


Figure 2.11 Total Quality Management (TQM) illustrated as a management system made up of values, methodologies and tools. From Bergman & Klefsjö (2003, p.400).

Other "models" or pictures of TQM currently to be found includes "the TQM pyramid" model/picture by Dahlgaard et. al. (2002, p.21), which differs only slightly in that it puts "leadership" as the foundation of TQM and includes the critical element "focus on processes" in "continuous improvements". Another example is the "cornerstones" model/picture also by Bergman & Klefsjö (2003, p.36), placing "committed leadership" as the base of TQM and "focus on customers" in the center.

The Aim of TQM

Different authors have different opinions of the aim of TQM, as can be seen by the examples given in Table 2.1.

Table 2.1 Examples of the declared aims of TQM found in literature.

Scholar	**Declared aim of TQM**
Oakland (1993)	Improve the competitiveness, effectiveness and flexibility of the whole organization
Dale (1999)	Long-term success through customer satisfaction, and benefits to all members of the organization and to society
Shiba et al. (1993)	Manage companies to provide customer satisfaction in a rapidly changing world
Hellsten & Klefsjö (2000)	To increase external and internal customer satisfaction with a reduced amount of resources
Dahlgaard et al. (2002)	To continuously satisfy customers' expectations at low cost through everybody's participation

It could be noted that none of the aims for TQM as seen in Figure 2.1 actually refers to quality in any direct way. However, the various aims are generally related to the output of the organization in which TQM is applied, and more specifically to how the output is perceived by the customers of the organization. In using systems terminology, TQM might hence be fruitfully thought of as a number of interrelated components, referred to by, for instance, Hellsten & Klefsjö (2000) as values, techniques and tools, that work together to affect another system, an organization. More specifically, the components of TQM work together to affect the output of the organization in which they are implemented, in terms of improving how the output is perceived by internal and external customers. It can further be noted that some scholars include decreasing the input of the organization in the aim of TQM, in terms of used resources (see e.g. Hellsten & Klefsjö, 2000). Notice that the organization can also be seen as a part of a wider system such as one including external customers and suppliers and that some of the aims also include affecting this wider environment in terms of society. Note also that both an organization and TQM, according to Bergman & Klefsjö (2003), have the characteristics of open systems, i.e. having input and output relationships with elements outside of their system boundaries.

The divergence of views concerning the aim of TQM makes it hard to choose one of them in preference to others. An appealing option is to rather integrate them into a general and clear perspective in terms of “to improve quality within organizations”. This perspective includes the accentuation of improvement accentuated by Oakland (1993) and Bergman & Klefsjö (2003) as well as the focus on organizations as accentuated by Oakland (1993), Dale (1999) and Shiba et al. (1993).

When including the quality perspective of this thesis, as acknowledged in Figure 2.6, such a perspective would then imply that the aim of TQM is “to improve the ability to create customer value within organizations”. However, such a perspective still does not include the necessity to be superior to competitors, or competitive, as accentuated by Oakland (1993). In a competitive world, it is not relevant for the TQM system to simply aim for the creation of customer value as the competitors very well might offer higher customer value. In being relevant for an organization to apply, the TQM system reasonably must aim for the creation of superior customer value, as the key to competitive advantage. With this final addition made, the aim of TQM in this thesis is hence acknowledged as “to improve the ability to create superior customer value within organizations” as seen in Figure 2.12.

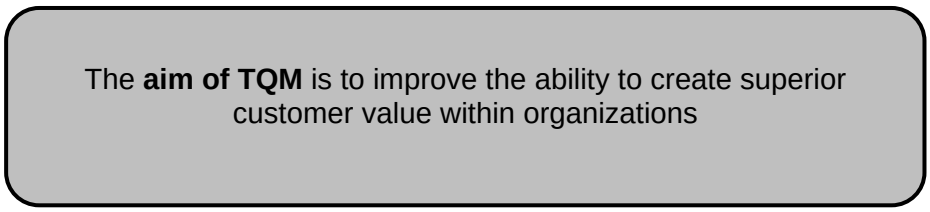


Figure 2.12 Perspective of the aim of TQM acknowledged in this thesis.

Relating TQM to the Marketing Concept

In relating to marketing, modern quality management has come to share the notion of the marketing concept, which holds that the key to achieving organizational goals is to be more effective and efficient than competitors in identifying and satisfying the needs of target markets (e.g., Kotler 2003, p. 19). The essence is that a company should identify its customers' needs and adapt its operations to their needs (Levitt, 1960). Even though quality management often seems to dissociate itself from marketing, as is made clear in the perspective on advertising referred to in Deming (2000, p.168) "The purpose of studies in consumer preferences is to adjust the product to the public, rather than, as in advertising, to adjust the public to the product". However, according to Reeves & Bednar (1994), the most widely used definition of quality today is the extent to which a product or service meets and/or exceeds a customer's expectations and this grew out of the literature on service marketing (see e.g. Bateson & Hoffman, 1999; Grönroos, 2000). There might hence be reasons to believe that quality management and marketing are more closely related than commonly acknowledged. It could furthermore be noted that the very meaning given to market orientation has come to shift towards an inclusion of a proactive focus directed towards latent needs. As Narver et al. (2004) argue, the concept of market orientation implies both responsive market orientation, which addresses the expressed needs of customers, and proactive market orientation, which addresses the unarticulated latent needs of customers.

Criticism on Quality Management and TQM

The actual ability of the current TQM system to efficiently and effectively accomplish its declared aim is widely discussed. It is for example basically uncertain how different forms of quality practice actually contribute to the aim of TQM. Woodruff (1997) even claims that if organizations applying TQM are to become better at competing on superior customer value delivery, they will need an additional set of tools. Foley (2004, p.35) summarizes much of the criticism on quality management in general as:

> "After several decades of vigorous (often evangelistic) promotion and a burgeoning literature, quality management is not universally or even widely accepted, has no accepted or agreed definition, does not have a theoretical framework; has not found a place in mainstream western management literature, has failed to deliver promised result and is driven by debate and confusion over the definition of quality."

Klefsjö et al. (2008, p.123) furthermore state that "many problems related to implementation of quality management seem to depend on the consultants who, for several decades, have ignored the many potential political, psychological and behavioral difficulties in originations". The time, resources and work needed

during the implementation are hence frequently underestimated (Lau & Anderson, 1998; Hansson, 2003; Hansson & Klefsjö, 2003)

There is also criticism directed toward specific tools and methodologies within the TQM system. It seems, for instance, uncertain if ISO 9000, categorized as a tool of TQM by Hellsten & Klefsjö (2000), actually contributes to external customer value. Juran argues, for instance, in an interview with Paton (1999) that "we have no research establishing that companies, which are ISO 9000 certified, have products superior to those which are not certified. I have seen some research comparing products that have come from certified companies and products that have come from non-certified companies, and the authors found no difference". In a subsequent interview with Paton (2002), Juran even claims that "there are indications that the people who are paying for those assessments are getting fed up". Another subject of extensive criticism is the Six Sigma initiative, categorized as a methodology of TQM by Klefsjö et. al (2001). Goh (2002, p.409) argues, for example, that "the error avoidance focus of Six Sigma tends to divert energy from exploratory pursuits and endeavors for value creation". Defects simply do not matter much if you are making a product no one wants to buy, as argued by Clifford (2001).

Another specific area for criticism concerns TQM and innovation. Cole (2003) proposes, for example, that it might be fortunate that "sustainable quality improvement" in its current form is out of our grasp. A fully institutionalized approach – that is to say, if a firm were able to develop a coordinated set of routines for delivering sustainable quality improvement along with a supporting set of norms and values - would probably damage the innovative capabilities of the firm. It may be that most organizations are better off with strong, but not fully institutionalized, quality systems. Cole (2003) further refers to Japanese executives discussing their competitive situation, and his surprise at how often the subject of how a strong quality focus might be thwarting innovation came up. Similarly, Johnson (2002) argues that the misdirected focus of Six Sigma in R&D seems likely to result in making the organization less creative, which risks crushing the innovation that is the essence of R&D's contribution to the shared success of the enterprise.

2.6 The Lens - A System of Profound Knowledge

Deming (2000, p.92) states that "a system cannot understand itself. The transformation requires a view from outside". In transforming and approaching a shift in quality management, as here in terms of realizing the creation of Attractive Quality within the system of Total Quality Management, it hence makes sense to look for insights from an outside view. Such a lens for transforming management was introduced by Deming (2000) under the name of "a system of profound knowledge". This system of profound knowledge consists of four different parts all related to each other as illustrated in Figure 2.13 below.

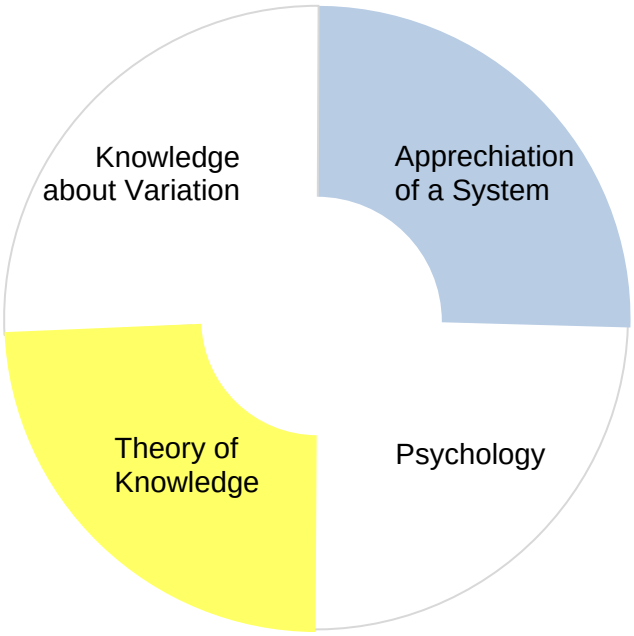


Figure 2.13 An illustration of the four parts of the system of profound knowledge as introduced by Deming (2000).

These four parts have been used as a theoretical frame of reference for this thesis. Therefore they are briefly described below.

Appreciation of a System

As stated by Deming (2000, p.95) a system can be understood as "a network of interdependent components that work together to try to accomplish the aim of the system". The very concept of 'system', and General Systems Theory (GST), began to be elaborated in the 1940s by the organismic biologist Karl Ludwig von Bertalanffy. He was interested in the organism as a whole rather than any of its constituent parts (see e.g. Bertalanffy, 1968). In general, a system can then be seen as an assembly of elements related in an organized whole (Flood & Carson, 1993). A more detailed description of the system concepts can be found in, for example, Flood & Carson (1993), Blanchard & Fabrycky (2006), or Sage &

Armstrong (2000). More specifically TQM could be classified as a social system i.e. a system that has been intentionally created and organized by people to accomplish one or more purpose, as elaborated by Lynn Jenks (2004). In systems theory, social systems are also referred to as human activity systems and Banathy (1992, p.12) describes them as "…our purposeful creations… manifested in sets of activities carried our by people who select and organize these activities to attain a purpose". Banathy furthermore accentuates that any system structure model needs to be complemented with at least two other models in order to actually capture a comprehensive view and description of the system. Banathy (1996, p.82) actually points out that "No single model or even a combination of two is then likely to be sufficient in portraying social systems. Each has its own function. Only if considered jointly, as if super-imposed on each other, do these models tell us the real story of a social system. Only if we integrate them do they reveal a system's true nature."

Knowledge about Variation

As stated by Deming (2000, p.98) "life is variation" and in a wider perspective, the evolution of various systems and life forms appears to be all about the increase and decrease of variation, in biological evolution most often referred to in terms of "mutation" and "selection".

Evolution as a Matter of Variation

The general evolutionary paradigm, as described by Costanza (1996), posits a mechanism for adaptation and learning in complex systems at any scale using three basic interacting processes: (1) information storage and transmission; (2) generation of new alternatives; and (3) selection of superior alternatives according to some performance criteria. This paradigm has been broadly applied to various types of systems, for example in the fields of ecology and economics, (for some application see Boulding 1981; Arthur, 1988; Maxwell & Constanza 1993) as a way of formalizing understanding of adaptation and learning behaviors in dynamic complex systems that operate in a state of constant adaptation to changing conditions. In biological evolution, the information-storage medium is the genes, the generation of new alternatives is by sexual recombination or genetic mutation, and selection is performed by nature according to a criteria of "fitness" based on reproductive success. The same process of change occurs in ecological, economic, and cultural systems, but the elements on which the process works are different as stated by Boyd & Richardson (1985).

Managing Variation

Historically quality management has approached variation as something unwanted that needs to be reduced. To some extent this perspective still remains within the areas of statistical quality control as, for instance, Montgomery (2001, p.4) even defines quality as "inversely proportional to variability" and quality improvements as "the reduction of variability in processes and products" (Montgomery, 2001, p.6). However, from an organizational perspective variation is rather an issue in need of continuous balance than a simple reduction. This is due to the specific need of not only managing routine work but also innovation that is closely related to the creation of Attractive Quality. An established view of innovation among organizations is that it needs another type of management than that of routine work. Schumpeter (1934) stated in his classical work, 'The Theory of Economic Development', that the management of innovation needs another theory (dynamic) compared to routine work (static). The organizing of innovation activities (innovation management) has been a research subject for several decades, and the problem of simultaneously trying to apply two different ways of organizing has been identified as a central one (Vandeven, 1986). While being innovative, companies must also exploit their current business potential in order to achieve short-term survival. This situation produces a dilemma for companies, since they have to allocate resources for two very different kinds of operations, namely exploration and exploitation (March, 1991). This phenomenon has subsequently attracted the attention of numbers of researchers, such as Burns & Stalker (1961), Norman (1977), Tushman & O'Reilly III (1996), Magnusson (2000), and Magnusson (2003). The duality has furthermore been illustrated in the EC framework as proposed by Magnusson (2003) where exploitation activities are illustrated as C-logic, as in capitalize, see Figure 2.14.

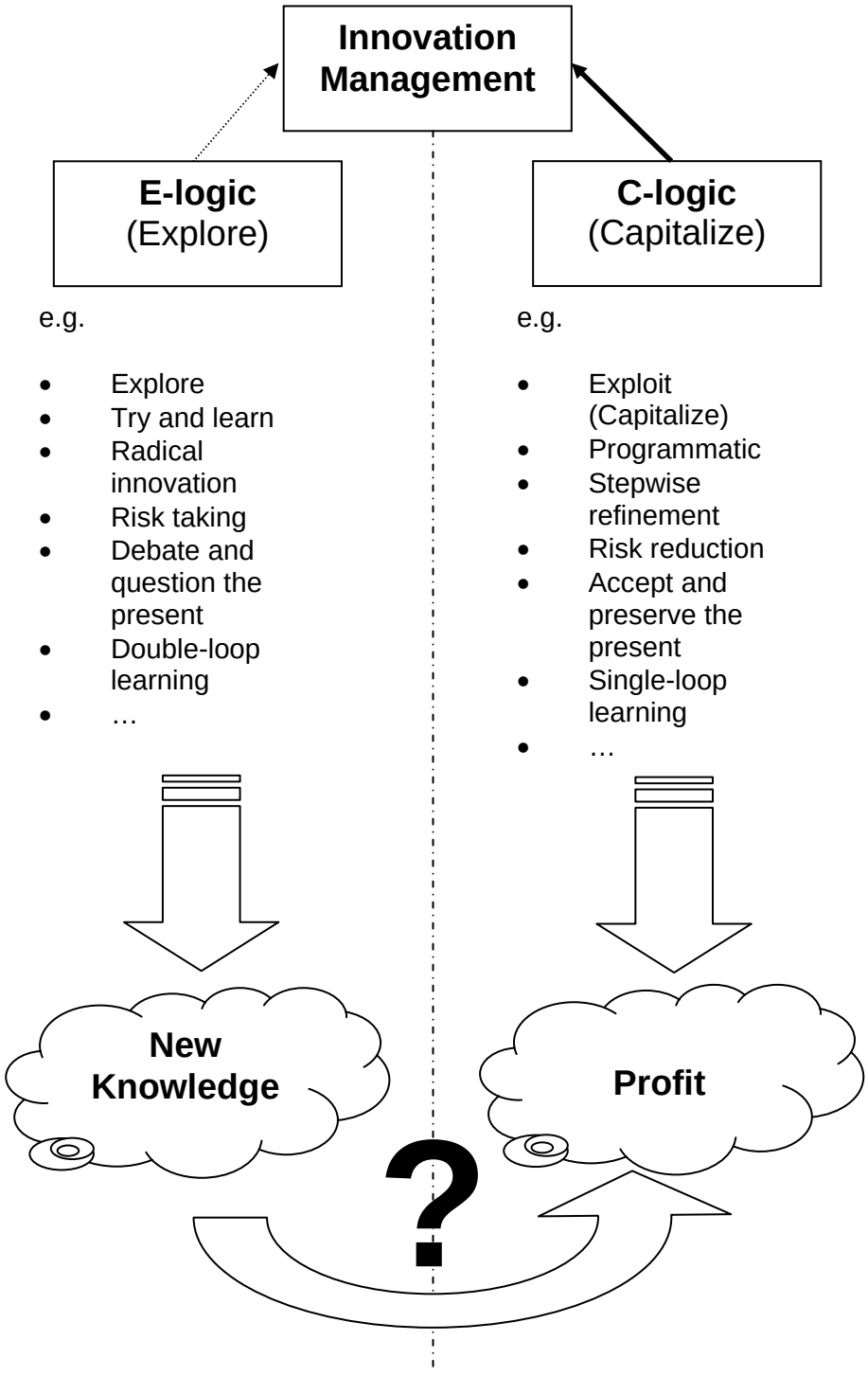


Figure 2.14 The EC framework of two contradictory types of logic to be handled by innovation management (From Magnusson, 2003, p.45).

In short the framework is aimed to illustrate that in order to successfully manage innovation, an organization needs, on a conceptual level, two contradicting types of logic named E-logic and C-logic; these must be handled concurrently.

In relating this to quality management, quality programs appear to be more related to exploitation activities, as argued by e.g. Ramis-Pujol (2003). These activities can be associated to the concepts of first-order change (Meyer et al., 1993) or single-loop learning (Argyris & Schön, 1978) and are captured by the literature with concepts such as: choice, production, efficiency, selection, implementation, and execution. Simplified, this logic can be seen as aiming for a decrease in variation. Exploration, or C-logic as it is called by Magnusson (2003), is on the other hand associated with: research, variation, experimentation, game, flexibility, discovery, and innovation (March, 1991). Simplified, this logic can be understood as aiming for a decrease in variation. Maintaining equilibrium between exploration and exploitation activities is argued as crucial to guaranteeing the survival of a system, as argued by Brown & Duguid (2001). The same authors further suggest that a simple choice or a static balance between exploration and exploitation is inadequate. Actually, there is a constant need to balance both dynamically. There is a need for the ability to handle efficiency and innovation simultaneously as argued by e.g. Magnusson (2000). The resulting situation turns out to be an organizational challenge, discussed as the productivity dilemma by Abernathy (1978) who argues that an organization cannot simultaneously attain high efficiency and a high level of innovation. However, there is little evidence for the trade-off postulate as stated by Adler et al. (1999), a number of companies challenge it and achieve high rates of both efficiency and innovation, both exploration and exploitation activities.

Theory of Knowledge

Deming (2000) further states that “management in any form is prediction” (p. 101) and that “rational prediction requires theory and builds knowledge through systematic revision and extension of theory based on comparison of prediction with observation” (Deming, 2000, p.102). Deming then stresses theory as central to the ability to learn and improve since without theory there is nothing to revise, nothing to learn. In accordance with Sutton & Staw (1995), Kaplan (1964), and Merton (1967), theory is the answer to queries of ‘why?’ Theory is about the connections among phenomena, a story about why acts, events, structures, and thoughts occur. Theory emphasizes the nature of casual relationships, identifying what comes first as well as the timing of such events. Strong theory further delves into underlying processes so as to understand the systematic reasons for a particular occurrence or non-occurrence. Using the logic of realist explanation from Pawson & Tilley (1997), theory explains causal outcomes by the operation of particular mechanisms in particular contexts as seen in Figure 2.15.

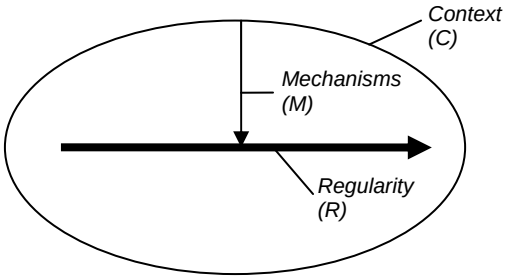


Figure 2.15 Basic ingredients of a realist social explanation illustrating that interesting regularities (R) are explained by underlying mechanisms (M) fired in particular contexts (C). From Pawson & Tilley (1997, p.72)

Psychology

Deming (2000) emphasized that psychology helps us to understand people, interaction between people and circumstances, interaction between customer and supplier, interaction between a manager and his people and any system of management. He also stressed that people are different from one another and these differences must be used for optimization of everybody's abilities and inclinations.

Theory of Reasoned Action

The "Theory of reasoned action" was proposed by Fishbein & Ajzen (1975) and later refined as the "Theory of planned behavior" (Ajzen, 2005). Since its inception, many studies have applied this theory in a great variety of behavioral domains and a great number of studies have provided strong support for it, as highlighted by Ajzen (2005, p.119). According to the theory, intentions and behaviors are a function of three basic determinants. One of the determinants is personal in nature, one reflects social influence, and a third deals with issues of control as illustrated in Figure 2.16. The personal factor is the individual's attitude toward the behavior, which is the individual's positive or negative evaluation of performing the particular behavior of interest. The second determinant is the person's perception of social pressure to perform or not perform the behavior under consideration. Since it deals with perceived normative prescriptions, this factor is called the subjective norm. Finally, the third determinant of intentions is the sense of self-efficacy, or ability to perform the behavior in question, termed perceived behavioral control (Ajzen, 2005).

In sum, individuals intend to perform a behavior when they evaluate it positively and when they believe that important others think they should perform it as well as believing that they have the means and opportunities to do so. A multitude of

background factors may then be related to or influence the beliefs and attitudes people hold such as: age, gender, education, general attitudes and values, past experiences and so forth.

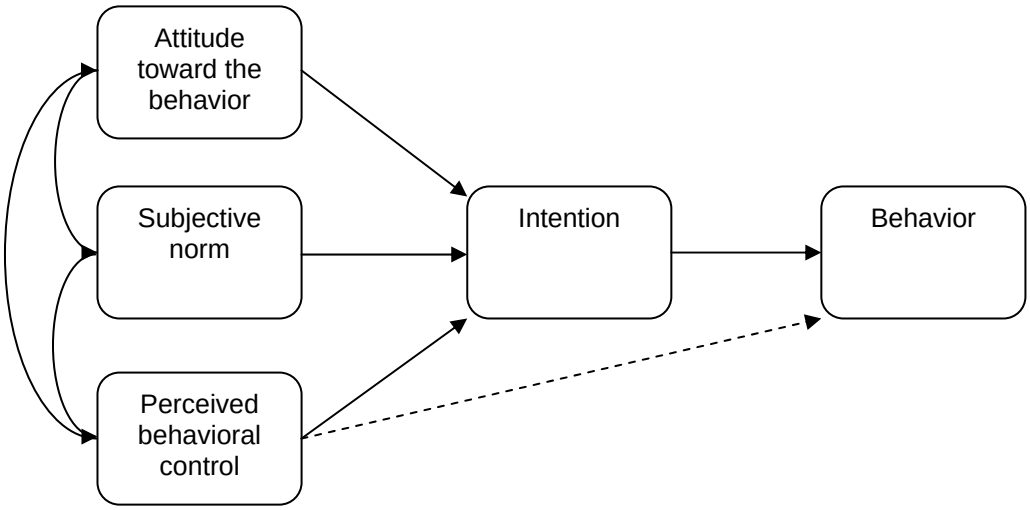


Figure 2.16 An illustration of the theory of planned behavior. From Ajzen (2005, p.118).

Human Motivations

Maslow (1999) proposed that his classical need-hierarchy may be reduced to two basic motivations, called deficiency motivation and growth motivation, which basically concern the decrease of perceived negative affect and the increase of perceived positive affect. These two basic motivations are very similar to informational and transformational motivations that are used in the context of marketing (see e.g. Rossiter et al., 1984; Rossiter & Percy, 1996). Informational motivations then follow the general emotional path from a distressing emotional state to a relaxing one. A negative emotional state occurs first, normally referred to as "a problem", followed by a relief when the problem is perceived as reduced. On the other hand, transformational motivations follow a completely uncorrelated emotional path from a dull emotional state, or simply from a neutral state, to an exciting emotional state. The general paths may be visualized in the Circumplex, as illustrated in Figure 2.17.

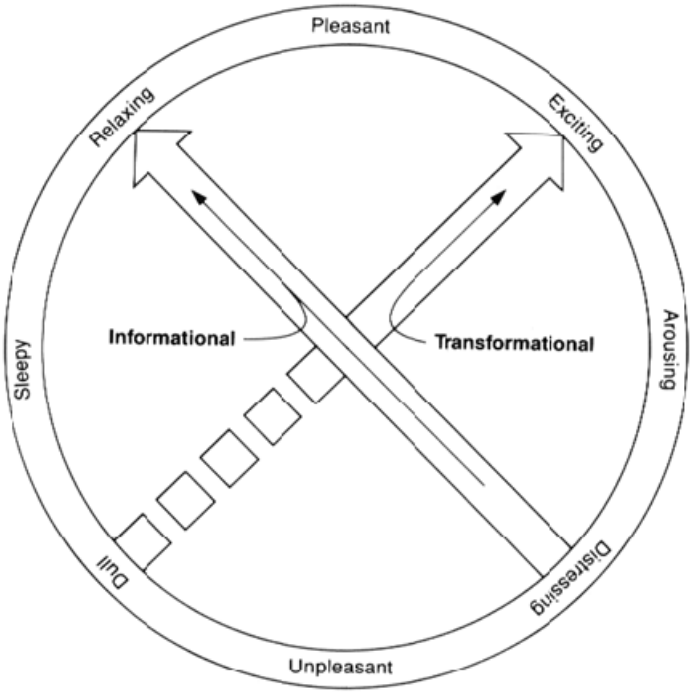


Figure 2.17: The decrease of negative affect is represented by the informational motivations arrow, and the increase of positive affect is represented by the orthogonal transformational motivations arrow in the Circumplex. From Rossiter & Percy (1987, p. 212)

Positivity - Broaden and Build Theory

The broaden-and-build theory of positive emotions introduced by Fredrickson (1998, 2001) suggests that positive emotions (e.g. happiness, interest, anticipation) broaden people's awareness and encourage novel, varied, and exploratory thoughts and actions. More simply put, it enables creative and flexible thinking, as concluded by Fredrickson & Joiner (2002) and Fredrickson & Branigan (2005). Over time, this broadened behavioral repertoire builds skills and resources. In addition Fredrickson (2005) concludes that negative emotions, relative to a neutral state, narrow this thought-action repertoire. The hypothesis, that positive emotions broaden thinking and action repertoires, drawn from the broaden-and-build theory, is supported by two decades of research, as shown by Fredrickson (2003).

Emotions and Affect

The three concepts emotion, affect and mood, are frequently used interchangeably in literature, but they can be differentiated. In short, emotions usually fade after some time but can leave behind a trace in the form of a certain mood. Further, positive and negative emotions and moods are jointly referred to as affects (Cohen & Areni, 1991). Unfortunately, emotional states and emotions seem not to be easily defined, see for instance Plutchik (1980) who reviews 28 definitions of emotion.

However, emotion is in this thesis acknowledged in accordance with Ortony et al. (1988) as, positive or negative reactions to events, agents, or objects. Certain emotions are thought to have biological origins, such as anger and joy, while others require additional cognitive processing, such as gratitude.

Lazarus & Lazurus (1994) claim that humans are the most emotional creatures on earth, and these emotions seem to have a vital impact on our behavior. Research has for instance recently shown that we tend to let our future behavior be directed by anticipated emotions (Bagozzi & Dholakia, 1999). Customers have been shown to behave in a way that is thought to maximize positive emotions and avoid negative ones (e.g. Parker et al., 1995; Bagozzi et al., 1998). Söderlund (2002) even speculates that emotions might be the underlying mechanisms of our needs, aiming to increase positive and decrease negative emotions, which is similar to the pain-minimizing and pleasure-maximizing goals proposed by appraisal theorists (e.g. Roseman & Evdokas, 2004).

The Affect Circumplex

The Affect Circumplex is a graphical model aimed to support the understanding and relationship between various human affects; see Figure 2.18. It can be generally described as based on the two primary independent dimensions positive and negative affectivity. Note however that presentations may differ in their graphical rotation. The structure has been widely supported by data attesting its replicability using for instance factor analysis. For examples see (Chamberlain, 1988; Mano, 1991; Meyer & Shack, 1989; Storm & Storm, 1987).

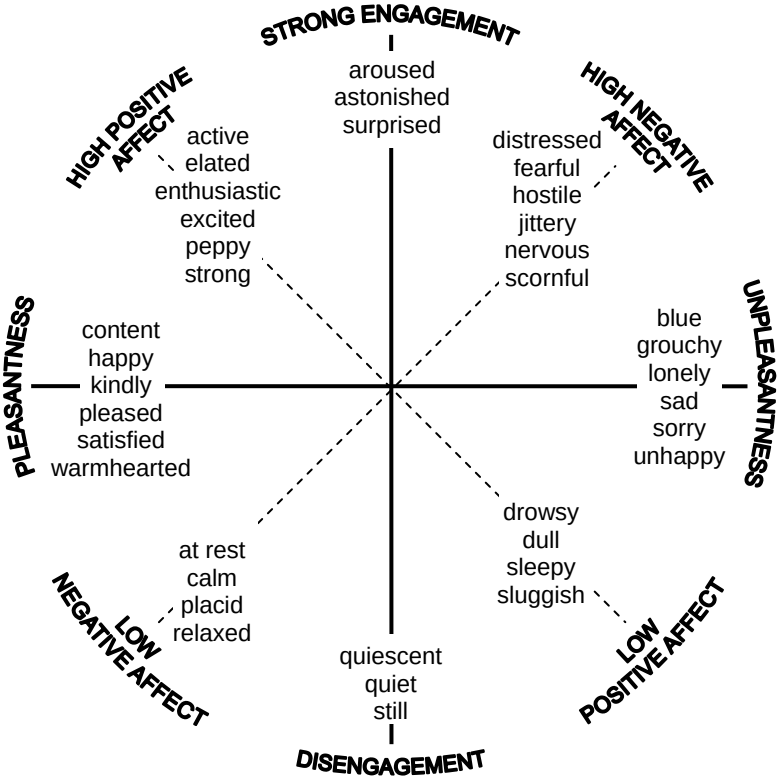


Figure 2.18 The two-factor structure of affect, also known as the Affect Circumplex. From Watson & Tellegen (1985).

The interdependency of positive and negative, as illustrated in the Affect Circumplex, appears fairly robust across many diverse contexts (e.g. Bradburn 1969; Diener & Emmons 1985; Zevon & Tellegen 1982; Warr et al., 1983, Goldstein & Strube, 1994; Larson, 1987). It simply implies the possibility of simultaneous positive and negative affect. Further, Egloff (1998) showed that the independence of positive and negative affect depends on the affect measure used. This can be explained by confusion between moderately aroused affects such as pleased and unpleased, with highly aroused affects, such as delight and anger.

Commercial Experiences

Consumption is currently widely described as having become more fragmented, hedonic and individual specific, satisfying not only functional but also emotional needs (e.g. Mossberg, 2003). In fact, it has been argued for some time by for instance Featherstone (1990, 1991) that we are entering the so called era of post-modern consumption, where the primary goal of consumption is emotional experiences. Such development is reflected in a change among the rank of terminal values in favor of a sense of accomplishment and an exciting

life (Rokeach, 1989), and the shift from values which emphasize physical sustenance and safety to values which emphasize belonging, self-expression and the quality of life (Inglehart & Abramson, 1994). The essence is well summarized in what can be seen as a motto of our time “if it feels good, do it”. As pertinently remarked by Csíkszentmihályi (1990), people who are not devoted to their emotions are, in our modern western society, likely to be perceived as somewhat ridiculous, reserved and simply not totally present and alive. Pine & Gilmore (1998, 1999) elaborate on such a future while claiming that experiences that have always been at the heart of the entertainment business now are about to take root in business in general.

CHAPTER 3

RESEARCH STRATEGY

Research can be accomplished in many ways. This chapter presents and discusses the strategy chosen to answer the research questions of the thesis.

3.1 Introduction

The general mission of research is knowledge creation. The chosen research strategy can be seen as a guiding principle for this creation. For the research strategy to be effective, it must "fit" both the problem under consideration and the ultimate presumptions held by the researcher. Arbnor & Bjerke (1997) stress this relationship when illustrating the design of research strategy, see Figure 3.1. Basically the figure highlights the importance of, and interrelation between, five factors. Those factors are "ultimate presumptions", "paradigm", "methodological approach", "operative paradigm", and "study area". These factors are accounted for and used as the basis for the structure of the following sections.

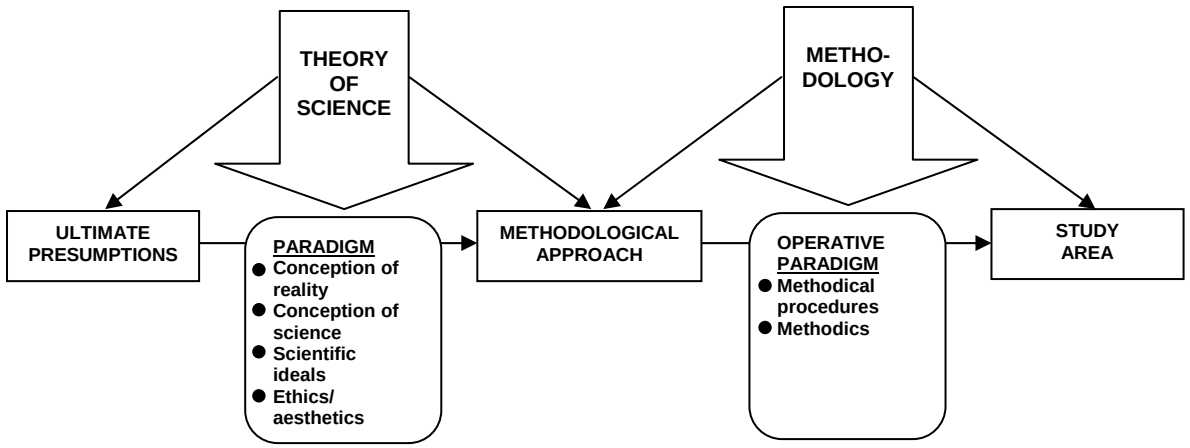


Figure 3.1 *The relationship between theory of science and methodology. Theory of science relates the ultimate presumptions and the methodological approach by a "paradigm". Methodology, on the other hand, provides an "operative paradigm" relating the methodological approach and a specific area of study. From Arbnor & Bjerke (1997, p.17).*

3.2 Ultimate Presumptions

In the social sciences, it is nowadays widely accepted that the paradigms and the presumptions of the researcher will influence the research and its findings (Holme et al., 1991). Gummesson (2001) even states that no research can be done without some degree of subjectivity. The author of this thesis believes that all research is conducted on the basis of a pre-understanding of paradigms and theoretical conceptions. My pre-understanding has certainly influenced the research conducted and this section is my attempt to share that pre-understanding with the reader.

I grew up taking part in a diverse family business, designing, producing and mounting balcony parapets as well as designing and producing ergonomic computer aids. As a consequence, Small and Medium Sized Enterprises (SMEs) have always been of particular interest to me. The practical experience also inspired and helped me to translate things learned in school into functional knowledge, applicable in practice, something that students unfortunately often have to do on their own, as further discussed by Biggs (2003). This contributed most likely to my pragmatic ideal of science. However, frustration occurred as soon as I entered the technical program at senior high school. Simply put, programs seemed to be designed with the assumption that students were capable of either left-brain thinking (analytical, rational and logical), or right-brain thinking (creative, aesthetic and holistic), in accordance with the learning theories of McCarthy (1987). I was not very fond of this restriction. Design and business development attracted me early because it encompasses some of the highest cognitive abilities of human beings, including what could be seen as

both sides of the brain, in terms of creativity, synthesis and analytical problem-solving. Anyway, during my ten years of technical education, I have come to realize that the prevailing perspective within technical areas of science is dominated by analytical and rational thinking, clearly disregarding creativity. I even experienced that my education had a negative impact on my creative and holistic abilities. Such a risk of modern education is often argued (see e.g. de Bono, 2000; Stickland et al., 1996; Isaksen & Parnes, 1992). An acceptable compromise was made by complementing school with evening classes in traditional "right-brain activities" like dancing, drawing and music. My frustration might explain my strong interest in creative processes. I graduated as a mechanical engineer in 2003, with product development as well as industry and market analysis as special areas of competence. My two specializations reflect an ambition and belief in further unifying customer value and the actual management of product development. I was then given the opportunity to continue with this dualistic focus within the multidisciplinary subject area of quality management and started work on my PhD immediately after getting my master's degree. Such an opportunity I could not refuse.

3.3 Study Area

The research strategy must "fit" both the problem under consideration and the ultimate presumptions held by the researcher to be effective. With the ultimate presumptions accounted for, the interest turns towards the problem under consideration, i.e. the area of study. Research is often classified on the basis of its purpose, and historically there are three major purposes of research. These purposes are to explore, describe, or explain the phenomenon of interest (see e.g. Marshall & Rossman, 1999; Zikmund, 2000). 'Explore' then refers to building rich descriptions of complex circumstances that are unexplored in the literature (Marshall & Rossman, 1999), and to the clarification of the nature of vague problems (Zikmund, 2000). 'Describe' refers to the description of some characteristics of a phenomena or population based on previous understanding of the research problem, and the third purpose 'explain' deals with the stipulation of a set of casual links concerning a phenomenon (Yin, 2003). The purpose of this thesis might be classified as a matter of exploration as it refers to the building of rich descriptions of a complex circumstance that is pretty much unexplored in the current literature. More detailed comments on the three research questions are presented in Table 3.1.

Table 3.1 Comments on the three research questions of the thesis in relation to the categorization of research purposes into exploratory, descriptive, and explanatory.

Research Question	Comments on the Purpose
(1) What does the concept of Attractive Quality really imply?	**Mainly Explanatory** Even though the concept of Attractive Quality can be found in literature the actual meaning and underlying mechanisms remain unexplored
(2) Why should Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?	**Mainly Exploratory** Even though some arguments for realizing the creation of Attractive Quality can be found in literature the issue remains mainly unexplored
(3) How could Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?	**Mainly Exploratory** Possible modifications and new additions to the TQM system that could contribute to realizing the creation of Attractive Quality have to be developed and evaluated in an exploratory way

3.4 Paradigm

Theorists of science have developed a "language" to describe the relation between the ultimate presumptions and how research is done. An important aspect of this language is the concept of research patterns or paradigms. Bearing in mind the fact that paradigms in social sciences evolve in parallel instead of in a revolutionary way, like in natural science, a paradigm interpretation modified from the one originally presented by Kuhn (1996) is preferred in this thesis. More specifically, the evolutionary view of Törnebohm (1974) is acknowledged, suggesting that a paradigm consists of a conception of reality, a conception of science, a scientific ideal, and an ethical/aesthetical aspect.

Concept of Reality

The argumentation for the existence of an absolute knowledge or eternal constant and universal rationality that is independent of whether anyone perceives, or is thinking about it, is characteristic of what can be called objectivism. This is often seen as the opposite to relativism, as discussed by Bernstein (1983). It is important to notice, however, that there is a continuous scale between these two extremes. A standpoint of absolute objectivism seems

as hard to defend as one of total realism, as expressed by Månson (1995). Arbnor & Bjerke (1997) present six important social science paradigms of relevance to business research on such a continuous scale. Furthermore, Brunsson (1982) distinguishes two main paradigms of social science, which represent the extremes on this scale separating them by their aims of reproduction or language creation. The difference is that, within the ideal of language creation, reproduction is only a method used to reach the goal of influencing social systems. It is not seen as a goal in itself as is the case within the reproduction ideal (Brunsson, 1982).

I personally share the language creation ideal, which has broad implications for my research. It brings emphasis to theory development, and appreciation of rival theories for a phenomenon. My concept of reality is further that reality is a world of symbolic discourse and a social construction, which is more towards the realistic end of the continuous scale, as presented by Arbnor & Bjerke (1997).

Concept of Science

Research has often been seen as the creation of objective knowledge by following a scientific method. That perspective is questioned in this thesis. I consider empirical social science a far more tricky and problematic process than normally communicated. The usual focus on procedures and methods for data collection tends to distract attention from the need for reflection and interpretation, as argued by Alvesson & Sköldberg (1994). The truth searched for in scientific activities can more fruitfully be understood as a multiple concept with the three dimensions of correspondence, application, and meaning, according to Alvesson & Sköldberg (1994).

Correspondence then refers to how well the theory conforms with the objective reality, application to how pragmatic or useful the theory is, and finally meaning to how well the theory reveals a deeper meaning than is immediately evident. Theories will then be more or less true within these three seemingly different dimensions of truth. The ambition of my research in relation to this triple truth concept is illustrated in Figure 3.2. The results are aimed at uniting meaning and applicability. The correspondence with an objective reality is less interesting as I assume that the reality of interest to the social sciences exists only as a social construction. The meaning held in common by the group, organization or society might be seen as an objectified reality, but it is not objective in the sense of, for instance, positivism. The fact that most importance is given to applicability reflects my interest in pragmatic knowledge, as described in the ultimate presumptions and the pragmatic focus that characterize quality management.

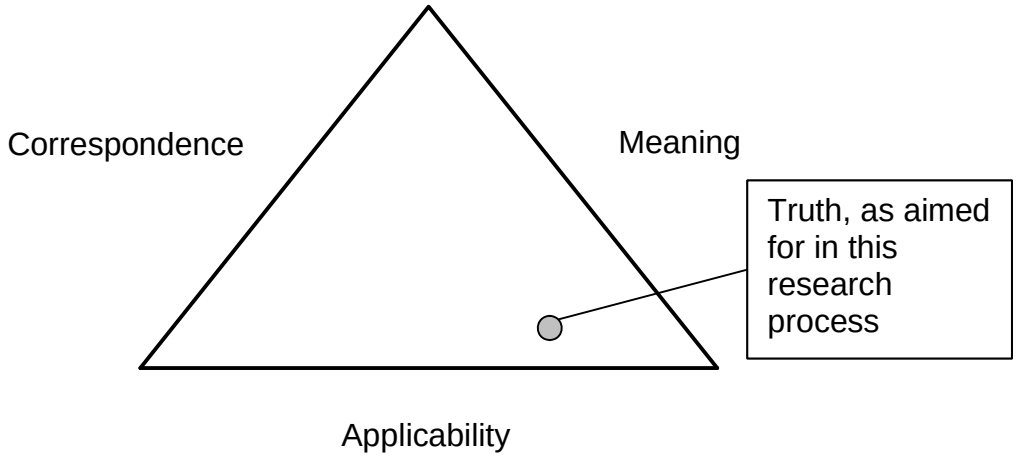


Figure 3.2 The truth, as aimed for in this research process, in relation to three dimensions of truth. The model is modified from Alvesson & Sköldberg (1994, p.35).

Scientific Ideal

A distinguishing feature of most social sciences is that research and researchers with very different starting points concerning the ideal of science coexist within every field. There are, for instance, definite and decisive differences between creators of knowledge who want to explain, and those who want to understand (Arbnor & Bjerke, 1997, p.44). Historically, positivism and hermeneutics are the dominant traditions of research in the science dealing with people and society; see for instance Thurén (1991). Hermeneutics can be translated into the "art of interpretation" or "interpretation science". Positivism, on the other hand, can be translated into "the art of observation" or "explanation science", see Bryman (2002). An important difference between the perspectives is their respective views of the degrees of complexity in the social world. Positivists assume that the world is so complex that science must devote itself to simplification and reduction. Hermeneutics, on the other hand, assumes that the world is already so simplified by its actors' use of schemes, models and norms that science must devote itself to "problematizing". Even though the author prefers the hermeneutic ideal of science for research within the social sciences, an intermediate position between the two previous is taken, acknowledging the historical positivistic tradition within quality management. This position is in line with what Arbnor & Bjerke (1997) refer to as the system approach.

Ethical and Aesthetical Aspects

Argyris (2000) states that academics should base their research questions and solutions in the real, practical world. He further states that few scholars specify the process that management should use to implement their theories and even fewer take issues of implementation and change into account when choosing

their research method. It seems that most scholars concerned with this issue argue for closer collaboration between industry and academia. The author of this thesis shares the assumptions that it is possible and desirable to create actionable and scientifically relevant knowledge at the same time. Pragmatism and the intention of applicability are generally central in quality management (Spencer, 1994; Woodruff, 1997). Further, language creating research, which is the ideal shared by the author of this thesis, is dependent upon good contact with the intended users of the created knowledge. It is also seen as a matter of course that the theories developed are to be spread outside the academic world and outside the particular systems studied.

3.5 Methodological Approach

According to Arbnor & Bjerke (1997) there are three methodological approaches operating in Business research/consulting/investigation today. These are denoted as the "analytical approach", "systems approach", and "actors approach". Using that classification, the research conducted in this thesis aligns with the systems approach.

According to Arbnor & Bjerke (1997) this approach came into business in the 1950s, partly as a reaction to the summative picture of reality in the analytical approach. Arbnor & Bjerke (1997)'s argument that even though systems thinking is the dominant point of view in both business, theory, and practice today, most methodological education remains based on the more traditional analytical approach. An analytical approach assumes that reality is constructed of summative components, aiming to explain an objective reality in terms of causal relations between individual factors. The assumption behind the systems approach, on the other hand, is that reality is arranged in such a way that the whole differs from the sum of its parts. This means that not only the parts but also their relations are essential, in terms of synergy. If we were to select a soccer team using the systems approach (in its pure form), our criteria would be based more on the relations among the players and on the team as a whole than on the individual players. Furthermore, we would discuss the environment of the system; in this case, both the makeup of the opposing team and the playing field would be important considerations. The choice of players would therefore be based on the assumption that the best total – according to external criteria – would be achieved when we found the best combination of players in relation to the opponents and the actual playing field. Likewise, if we were to select the components for the TQM system using the systems approach (in its pure form), our criteria would be based more on the relations among the components and on the system as a whole than the individual components.

A Matter of Systems Construction

The ambition of the methodological approach used in this thesis can be understood as a matter of systems construction. In accordance with Arbnor & Bjerke (1997, p.147) "systems construction means to develop a new system, that is, a system model that the researcher/consultant/investigator also hopes to be able to construct in reality". The need for a new system could emerge when, while analyzing a real system, the researcher finds that it does not function well. As stated by Arbor & Bjerke (1997, p.66) the systems approach furthermore denies the usefulness of looking for casual relations during such system construction. In the systems approach the researcher looks instead for forces that influence the system as a whole. Such a force may be that one constellation of components proves to be less functional, another could be the system objective as perceived by the system members. Other possible forces are the active behavior (or ambitions or intentions) of individuals who are part of the system.

3.6 Operative Paradigm

As stated by Arbnor & Bjerke (1997, p.294), the high level of formalism demanded in the analytical approach is not asked for in the systems approach, since using the various techniques "correctly" does not guarantee success in the systems approach. Success is rather associated with imagination, alertness, and awareness when facing the complex reality postulated by this approach.

Methodical Procedures and Methodics

Arbnor and Bjerke (1997, p.294) state that it is difficult to choose the correct technique in relation to the nature of the area under study in the systems approach. This is partly because the analysis of real systems is very much a matter of trial and error, which means having to modify techniques as the study process. However, the study conducted in this thesis can be classified as a goal-means oriented study with a guiding purpose (Arbnor & Bjerke, 1997, p.301). In applying a goal-means orientation, goals for both the study and the system are stated at an early stage of the study. Creators of knowledge then seek the means that will permit them to fulfill their goals, which in turn involves finding the means by which the system can reach its goals. The problem is defined as a lack of goal fulfillment. In the case of this thesis, the problem can be defined as a lack of, or weak, ability of the TQM system to actually improve the creation of superior customer value within an organization. As a means for reaching the system's goal, researchers might aim for more purposeful systems structures and/or systems processes. Using a goal-means orientation, creators of knowledge can make a general plan for study as a whole, with the course of the study essentially following the order illustrated in Figure 3.3.

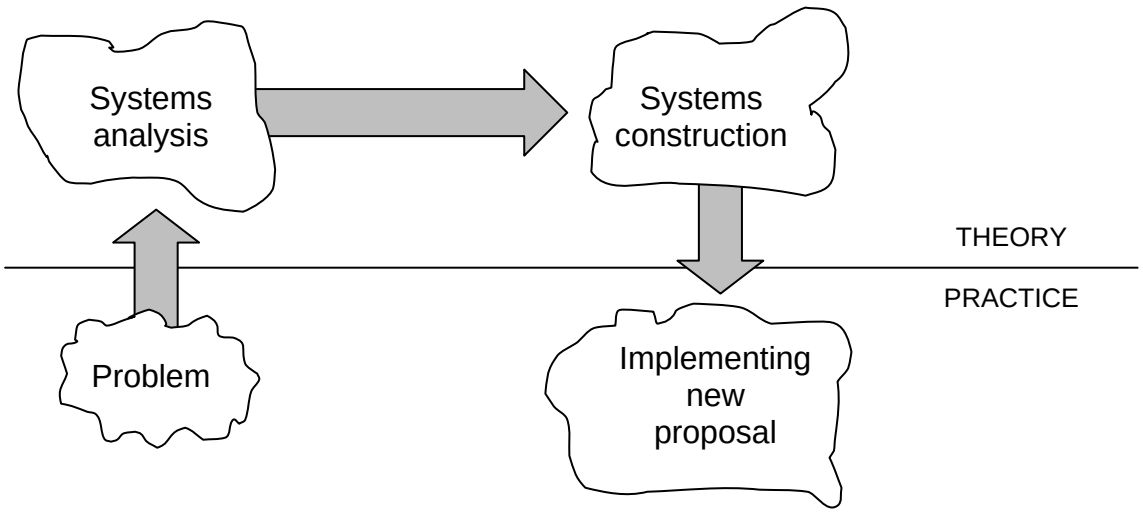


Figure 3.3 A general plan for a study with a goal-means orientation. From Arbnor & Bjerke (1997, p.302).

The four steps illustrated in Figure 3.3 are used as a structure for the following sections.

Problem

In general a study process in accordance with the goal-means orientation then starts with the indication of a problem. This specific study process started with the indication of a problem in the TQM system. More specifically, the problem can be defined as a lack of, or weak, ability of the current TQM system to improve the creation of customer value within organizations, and the creation of Attractive Quality in particular.

Systems Analysis

In general, a study in accordance to the goal-means orientation more carefully formulates the problem using systems analysis. During this specific study the problem in the TQM system was hence further elaborated, understood, and refined through an extensive analysis closely related to answering research question one (RQ1). The systems analysis was conducted using a set of techniques for collecting primary and secondary information. In accordance to Arbnor & Bjerke (1997, p.224) there are two main categories of techniques for collecting data in terms of collecting secondary information (using material previously collected) and primary information (collecting new data). In the systems approach both these categories of techniques are generally used. The systems approach is less quantitatively oriented than the traditional analytical approach. Its measurements are therefore not as precise. Such precision is not

considered worth aiming for. As in many other contexts, the systems approach takes a pragmatic position. It could be noted that the primary data collected are not accounted for in the appended papers, and therefore are not referred to in more detail in this thesis, but yet served as an important source of inspiration during the research process.

The data collected during the systems analysis included secondary and primary data as described below.

Secondary data collected during systems analysis

- **Literature Study (S1)**
  Initially the literature served as a foundation for a deeper understanding of the Kano Model and the concept of Attractive Quality. The search within quality management literature was soon complemented as the first analysis showed that the concept of Attractive Quality was in need of further clarification and a deeper understanding. The literature study then focused on the declared theoretical roots of the model and related concepts such as delight and satisfaction as illustrated in Figure 3.4. In a wider contextual perspective the literature study also came to include the fundamental concepts of competitive advantage and customer value.

Primary data collected during systems analysis

- **Learning from Walt Disney World (P1)**
  An initial case study was conducted at the Walt Disney World Resort in Orlando US. Walt Disney World was identified as a uniquely interesting case based on three factors. To start with, Walt Disney Company had proven successful in delivering superior customer value over a long period, secondly, they are successful in what could be defined as the Experience Economy, that is they are creating customer value in terms of customer responses such as delight. Finally, they appeared to be working systematically with the management and improvement of the customer value delivered. Some results from this study are presented by Eriksson et al. (2007).
  Selection principle: Interesting example that could inspire the redesign of TQM.

In sum, the phase of systems analysis resulted in the insights that the lack of goal fulfillment in the TQM system was especially evident concerning the positive aspects of customer value and response. That is the appreciation and systematic attention given to the creation of positive emotions and affect. Insights highlighted in Paper A, B, C and D. The system analysis revealed strong contradictions in the current understanding of the concept of Attractive Quality in comparison to its declared theoretical roots in terms of motivator

factors. The system analysis also showed that the positive emotions and affect that constitute the response to Attractive Quality appeared to be closely related to, and of great relevance to, the perception of customer value and competitive advantage.

Systems Construction

After reproducing the problem by means of an extensive systems analysis, the creator of knowledge then draws up a new systems proposal. It can be noted again that the primary data collected are not accounted for in the appended papers, and therefore not referred to in more detail in this thesis, yet served as important inspiration during the research process.

Secondary data collected during systems construction

- **Literature Study (S2)**
  As the research process went from analysis to construction, the focus of the literature studies turned from 'what' and 'why', towards 'how'. An important source of data was then research, and examples of practices related to the "Experience Economy" as defined by Pine & Gilmore (1998). The literature study did however also include literature concerning the measurement of satisfaction and the current TQM system. An important area of study was also innovation management, as the creation of Attractive Quality within the TQM system has many similarities with this phenomenon. Furthermore, the construction, or reconstruction, of TQM demanded a clear understanding of TQM that guided the literature study also towards the structure of the TQM system.

Primary data collected during systems construction

- **An Update on Best Practice Innovation Management (P2)**
  As part of the construction phase close collaboration and continuous discussions concerning best practice innovation management was initiated with consultants at the leading innovation management consultancy firm, Systematic Inventive Thinking (SIT) Scandinavia. These discussions revealed and brought competence concerning some of the currently most used tools and methodologies for systematic innovation and customer value creation, including an extensive toolbox for systematic ideation and creativity.
  Selection principle: Interesting example that could inspire the redesign of TQM.

- **A Local Checkout in Search of Interesting Examples (P3)**
  In order to find more interesting case studies in the local area ten local actors within the industries of sports, outdoor and tourism were chosen for a closer examination. The examination was conducted in terms of

personal interviews with CEOs and product developers and resulted in a SWOT analysis for each company. However, this study revealed little of interest in terms of best practice. It did though stress the need for more efficient and effective practices for customer focus.
Selection principle: In search for interesting local examples that could inspire the redesign of TQM.

- **Mapping Global Leaders of the Experience Economy (P4)**
  As a part of the innovation management educational program and lab called "Skarp Åre", that the author of the thesis is educational leader for, a large number of case studies have been conducted aiming to map and understand how leading, innovative actors and offers in the experience economy create and deliver customer value. Destinations explored include for example Iceland, Dubai, US, Canada, New Zealand, Bali and Switzerland. As a result, the author of the thesis has achieved a deeper knowledge concerning the various mechanisms and attributes enabling superior customer value creation within the experience economy today.
  Selection principle: Interesting examples that could inspire the redesign of TQM.

In sum, the phase of systems construction resulted in a number of more or less concrete ideas of how to modify the TQM system in order to more systematically enable the creation of Attractive Quality. The phase also resulted in a re-understanding of the current TQM system as presented in Paper G.

Implementing the Proposal

As a fourth and final stage, an implementation of the new proposal is then attempted, which may or may not succeed in all respects. Such implementation will be designed as a large number of iterations where the proposal and its parts are continuously evaluated and refined towards perfection. As for the research conducted in this thesis, implementing the proposal has only been initiated as a set of evolving and new methodologies and tools aimed at attractive quality creation which has been the subject of tests in practice. The primary data collected during these tests are not accounted for in the appended papers, and therefore are not referred to in detail in this thesis, yet served as important inspiration during the research process.

Secondary data collected during implementing the proposal

- **Literature Study (S3)**
  The literature study conducted during the phase of implementing the proposal have mainly been focused on Problem Detection Study (PDS) as a basis for the design of a new complementing and uniting methodology

that can support the systematic capturing and creation of Attractive Quality in terms of Attraction Detection Study (ADS).

Primary data collected during implementing the proposal

- **Testing New Tools for Experience Design – DFEx Toolboxing (P5)**
  As part of the "Skarp Åre" program, a large set of new tools for commercial experience design has been developed, evaluated and refined during a process called "toolboxing". A process that has brought new insights into how new perspectives on customer value can be systematically included and supported in the product and business development process. The toolboxing process has included the testing of a large set of new DFEx-tools such as "Dream gossip", "Superman me" and "Grab the authentic" within real product development projects with mainly positive results concerning both perceived usability and achieved results. The DFEx toolbox is mainly aimed at supporting design aimed at satisfying high-level needs of the customers.

- **Testing New Tools for Experience Tracking (P6)**
  A number of studies have also been focused on the evaluation and refinement of new behavioral and experience mapping tools supported by GPS-positioning technology called "Experience Tracking". The studies have so far been conducted in the context of front-end product development together with the companies Skistar Åre, Biathlon Östersund, and Storsjöyran with positive initial results. Some of the tools have now even been commercialized by a recently started company called "Peak Experiences R&D". The Experience Tracking tools are mainly directed towards the satisfaction of latent needs of the customers. Some results from these studies are presented by Zillinger (2010) and Pettersson & Zillinger (2009).

- **Testing the 4D-Process from Appreciative Inquiry (P7)**
  As part of the possible toolbox explored for the systematic support of attractive quality creation, much inspiration can potentially also be found in the currently growing initiative of "Appreciative Inquiry". Appreciative Inquiry is a strength-based approach to change management. As part of such exploration a methodology in terms of "the 4-D process" of appreciative inquiry has been applied in the context of designing educational programs with Mid Sweden University. The experience so far has been very positive both from a student and a teacher perspective, as it enables a visionary co-creation and co-design in sharp contrast to the traditional course evaluation methodologies and tools.

- **Testing Design Methods and Methodology from IDEO (P8)**
  The American firm IDEO, recognized as one of the leading design firms in the world, has also been identified as a strong potential source of established methodology and tools for the creation of Attractive Quality. Basically since IDEO has a long and evidently successful toolbox with methodology and tools especially supporting observation and the identification and satisfaction of latent customer needs. A number of the existing tools of the IDEO toolbox have been tested in various contexts including within real product development projects including the tools "Character Profiles", "A Day in the Life", and "Personal Inventory".

In sum, it can be concluded that the phase of implementing the proposal, in terms of a redesigned TQM system, only has been initiated. A number of potential TQM system elements have however been initially tested and explored in the form of prototypes. The process of implementing and refining the proposal will continue as part of future research.

A Traditional Perspective

The combination of theory and empirical evidence during this research, see Figure 3.3, can also be described in relation to the traditional terms of deduction or induction. Yet a pure application of either of these two models seems hard to find in practice and might neither be desirable, as argued by Alvesson & Sköldberg (1994). Deduction suffers from having nothing to start from but guesses, and induction suffers from the inability to generate theory as it only summarizes observable structures. A promising and more realistic description of the research process is abduction that combines induction and deduction. Abduction does not start from zero but from an interpretation of patterns in the empirical material, as illustrated in Figure 3.3.

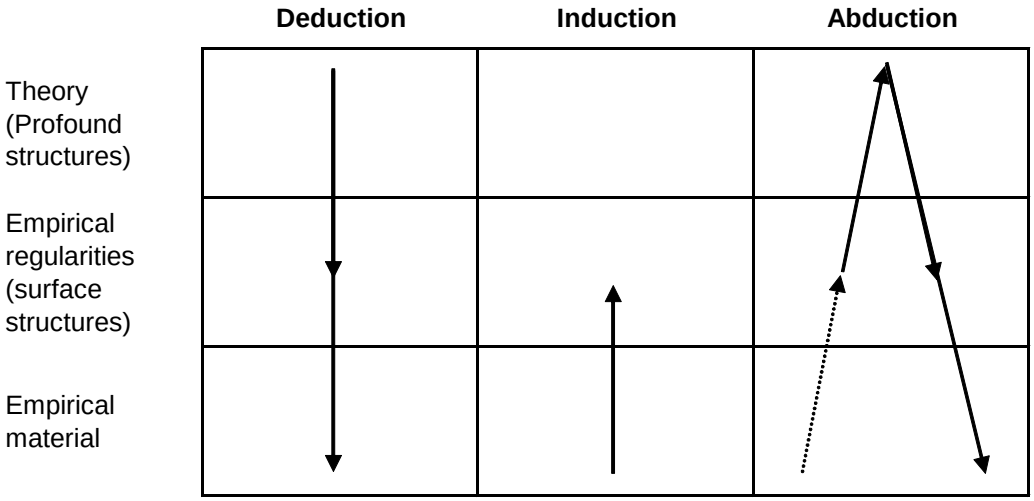


Figure 3.3 Deduction, induction and abduction. From Alvesson & Sköldberg (1994, p. 45).

Abduction also offers an appropriate overarching description of the research process, as realized during, and planned for after, this thesis. In this thesis, the research process can in fact be described as starting from empirical material and regularities, in terms of a number of claimed and experienced shortcomings of modern quality management in terms of TQM. This corresponds to the dotted arrow in the abduction process, see Figure 3.3. The focus of the research then moved towards the profound structures that might explain and "problematize" these regularities in terms of theories concerning customer value, emotions, variation, knowledge, TQM, and systems. That initiative corresponds well to the second arrow pointing upwards in the abduction process in Figure 3.3. Furthermore, the last two arrows in the abduction process can be seen as a description of what is in focus for the third research question and to come in the future research process, after this thesis, as the focus turns towards the contribution to practice.

Describing the Real Process

Giving a detailed description of the real research process so far, the point of departure has been my personal experience from the usage of many of the tools and methodologies of TQM in the context of product development and planning. My experience was that quality practice only supported part of the aspects that influence customer value and for some offers these aspects were of rather low interest to the customers. Experience from brand management in the context of product planning further provided me with insights concerning what these additional aspects might be in terms of e.g. the desired identity and terminal values of the customer. These types of aspects occurred to me as unaddressed in current quality practice although contributing strongly to customer value. This appeared to me as a strong contradiction given the modern definitions of quality and the expressed aim of modern quality management initiatives such as TQM Accordingly, I experienced a strong need to develop and strengthen quality practice and the activities in primary focus were product planning and product development. Based on this major aim, the literature studies began with a dual focus based on the current development patterns within quality management, as previously described. The dual focus was upon 'attractive quality elements' and the quality initiative known as Design for Six Sigma (DFSS).

The subject of 'attractive quality elements' naturally caught my interest; see the theory of attractive quality in Kano et al. (1996). These elements are proposed to have a more than proportional contribution to customer satisfaction, but the operational strategies for actually creating them appeared to be rather vague. My studies of the available literature and publications concerning attractive quality elements also indicated a situation of great confusion. It appeared as if the current theoretical foundation of the concept was far from adequate for the

development of proactive tools and methodologies that could support the creation of Attractive Quality in practice. There was simply a lack of common understanding of the concept and a lack of explanations and theory that explained the occurrence of the attractive quality response. Such explanations were seen as essential for the ability to predict and support the creation of Attractive Quality during the early stages of product development and product planning. Therefore, the studies had to be refocused from development and testing of new practices towards identification of the underlying mechanisms of Attractive Quality and customer value.

The studies conducted revealed that the explanations and examples found in quality literature were basically different from the explanations found in the declared theoretical roots of the attractive quality concept in terms of the motivator-hygiene theory and need-based theory. This finding supported the conclusion that the understanding of the attractive quality concept, as applied and described in quality literature, was in need of development and clarification. Somewhere along the way the concept of Attractive Quality actually appeared to have lost its connection with the theory from which it was deducted; theoretical roots which stress the response in terms of strong positive emotions and affect, unrelated to negative emotions. Furthermore, the roots stressed the satisfaction of high-level needs, through non-physical product attributes, in sharp contrast to the satisfaction of low-level needs by physical product attributes. The examples of attractive quality elements found in the literature could be seen to be restricted to reducing perceived negative emotions and affect. The very definition of attractive quality elements also restricted these attributes to objective qualities. There appeared furthermore to be a vital need to actually relate attractive quality creation to the fundamental creation of customer value, providing arguments as to why it actually should be realized.

Secondly, in a parallel process, the initiative Design for Six Sigma (DFSS) caught my interest as it often is described as focusing on customer value creation during early phases of product development. Studies of the available literature concerning DFSS, however, once again revealed a restricted perspective on the value of external customers. The focus of the initiative is basically to reduce or prevent defects and problems by design improvements. Furthermore, the initiative did not include the essential activities of product planning, starting as it did from a predetermined, or as argued frozen, specification.

The results from these initial literature studies were indeed unexpected. They reinforced the initially experienced need to strengthen quality practice by the realization of attractive quality creation, but not only in terms of the reduction of

latent problems, as in the satisfaction of low level needs, but in a much wider sense in accordance with its theoretical roots.

The research process then refocused on finding proper outside views and theories – as a lens – that could be used to advance my specific area of interest. Consequently, the focus turned towards literature concerning the wider concept of customer value and customer satisfaction. Literature was found in subject areas such as psychology and marketing. It also turned towards insights from related subject areas such as innovation management, positive psychology, systems thinking and theory of knowledge.

I then approached the specific issue of how attractive quality creation could be realized within the system of TQM. However, once again I had to conclude that the understanding of the actual TQM system that I had to relate to was unclear and in great need of development. Consequently, the research process had to include a clarification and re-understanding of the TQM system.

Not until very recently did I finally manage to contribute more directly to quality practice in accordance with my consistent intention. A contribution much facilitated by being the leader of the development and execution of Skarp Åre, an experimental educational lab and program for product planning and development within the specific industries of tourism, sport and outdoor gear. In relation to this context a number of new practices are now taking form, to be published within the future research to follow from this thesis. One of them is the Attraction Detection Study (ADS) as introduced as part of this thesis.

The real research process is illustrated in terms of phase of study, research questions together with the derived questions providing direction to the research process, papers, and activities in Figure 3.4.

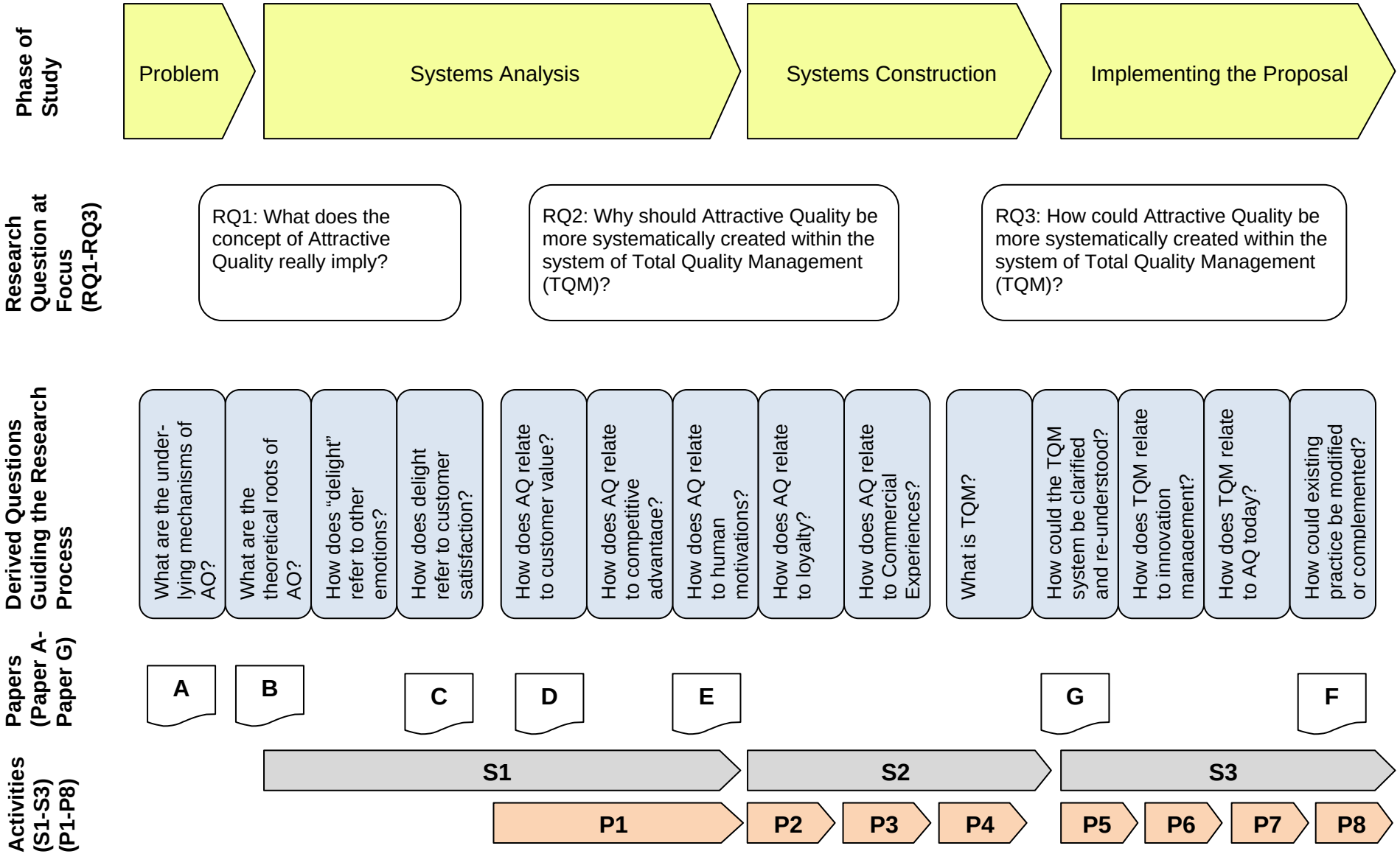


Figure 3.4 An illustration of the real research process. The notations S1-S3 and P1-P8 corresponds to the secondary and primary data collections presented in Section 3.6.

The Literature Studies

I will now give a more detailed description of the literature studies which were made in accordance with a general procedure. This started out with a screening of the most central contributions within the specific area of interest, such as "Attractive Quality" or "TQM AND model", by using the "Google Scholar" search engine in combination with the citation databases "SCOPUS" and Science Citation Index Expanded (SCIE). During this initial screening a number of alternative search phrases were used to ensure potentially important contributions were not excluded. As for the hits provided, the abstracts of all potential important contributions found were then read through for an initial identification of the most relevant contributions within the area of interest. The major contributions identified were then imported into an Endnote library and saved electronically, directly or scanned from paper copies, into a local full-text library. Depending on the area of interest this initial screening got to include the abstracts of all hits or a selection of the potentially most important. For instance, a search for "Attractive Quality" within title, abstract and keywords in SCOPUS provided no more than 57 hits with as many abstracts that all could be easily screened.

As a second step the major contributions were then used as a base for finding more relevant contributions. This was done by identifying the most essential references highlighted in each of the major contributions initially identified, as well as by searching and screening the contributions that later cited them. The later was done by the use of the aforementioned citation databases.

All together, the literature studies have resulted in an Endnote library with about 800 references identified as contributions of high relevance to the research presented in this thesis.

3.7 Research Design Quality

In judging the quality of a research design within the systems approach Arbnor & Bjerke (1997) note that the systems approach does not result in an absolute theory (as understood in the analytical approach) for the components of a model, nor for the way such components must be structured or behave. System researchers use the results from earlier studies only as mental inspiration for analogies when they conduct studies of systems with similar orientation and content (Arbnor & Bjerke, 1997, p.68).

Also when it comes to research design the systems approach is pragmatic. As stated by Arbnor & Bjerke (1997) the important thing is what a measurement can be used for, not the way a measurement was made or its precision. The traditional concept of *reliability* is rarely used. When it comes to *validity* the

systems approach also has a somewhat different view. Because of the lower degree of generality and absoluteness of systems theory the connections between theory, definitions, and reality are not as strong as they are in the analytical case. The requirement is not so much that definitions must correspond to existing theory or be operational, but rather that they are perceived to be important and relevant to the creator of knowledge as well as to other participants from the real system engaged (Arbnor & Bjerke, 1997, p.234). A common systems approach procedure for guaranteeing, as far as is possible, that measurements are correct is to reflect the system from as many angles as possible. To do this, creators of knowledge take every opportunity throughout the course of a study to be in the real system as long and as often as possible, to talk to as many people as possible, and to study as much secondary material as they can. All these three aspects have been guiding the work with this thesis.

More specifically, the author of the thesis has during the research process designed and managed a new innovation management educational program called “Skarp Åre” that perhaps best can be described as a real life lab for testing new methodologies and tools for the creation of Attractive Quality, making it possible to “be in the real system as often and as long as possible”. In parallel there has been an extensive discussion including company leaders, scholars from related subject areas, leading thinkers in the area, and international innovation management consultants concerning various perspectives on the phenomenon. In addition, a number of postgraduate courses as well as extensive literature studies within related subject areas have been conducted in order to reflect the system of TQM and the phenomenon of Attractive Quality from as many angles as possible. “The System of Profound Knowledge”, as presented in the theoretical framework (Chapter 2) reflects that ambition and effort. Another way of “talking to as many people as possible” has been through presenting and discussing the new ideas and perspectives that have occurred during the process at international conferences. In the end, a decisive validity control within the systems approach lies in the effects that can be achieved by applying the measurements with a guiding purpose (Arbnor & Bjerke, 1997, p.234)

When it comes to the selection of study units, the principle of independent units of study is generally not accepted by the systems approach. A systems-based person trying to create knowledge perceives his reality as consisting of systems, which by definition means dependent relations on the one hand, and partly unique cases on the other hand (Arbnor & Bjerke, 1997, p.223). It is therefore common to work with case studies. The cases studied can however not be selected on the principle that they will represent all other systems. Nevertheless they can represent a certain type of system. The case studies are usually selected on the principle that they are versatile or interesting in that they can lead the

development in some direction. During this thesis the case studies have mainly been chosen using the principle of being interesting for leading the development of the TQM system in a direction towards the creation of Attractive Quality.

CHAPTER 4

SUMMARY OF APPENDED PAPERS

This chapter summarizes the major messages of the seven appended papers. For more details, the reader is referred to the full papers found in the Appendix.

4.1 Paper A

Lilja, J. & Wiklund, H. (2006), "Obstacles to the Creation of Attractive Quality", *The TQM Magazine, Vol. 18, No. 1, pp. 55-66.*

This paper constitutes in many ways a departure for the research process. In short, it is the result of the author's notably fruitless search for a common attractive quality concept. The paper offers perspective on the attractive quality concept, highlighting the considerable praise it has received during the last two decades while noting the currently weak reflection of this in quality practice.

Purpose

The purpose of the paper is to contribute to an understanding of and a solution to the currently problematic situation where Attractive Quality is strongly accentuated in literature but not well reflected in quality practice by, for instance, engineering methods. More specifically, the purpose is to bring two identified obstacles to the realization of attractive quality creation into focus.

Methodology

The article is based on literature studies. The identification of obstacles is further based on two different approaches. Initially, the meaning given to the attractive quality concept is approached in search of a shared concept. Examples from literature are used to analyze and describe the current situation. Secondly, the ability to manage attractive quality creation in accordance with a proactive ideal is approached. This is done by comparing the current understanding of the Kano Model, and the attractive quality concept in particular, with criteria for good theory as suggested by Merton (1967), Kaplan (1964) and Sutton & Staw (1995).

Findings

Two specific obstacles to the development of practices for attractive quality creation are identified in the article.

The first obstacle is that a number of diverse meanings are attached to the concept of Attractive Quality. More specifically, a mixture of physical elements, customer requirements, needs, emotions and attitudes currently appear in the literature. The result is confusion whereby different causes, such as needs and expectations, as well as different effects, such as delight and satisfaction, are assigned to attractive quality elements.

The second obstacle is that the attractive quality concept is in need of a firmer theoretical foundation in order to enable a proactive management of attractive quality creation. Using the logic of realist explanation from Pawson & Tilley (1997), Kano et al. (1996) proposed an empirical regularity, a pattern in the correlation between subjective and objective quality. However, they did not explain the causes for these regularities, nor did they posit any underlying mechanism that generates them. The different categories of quality elements need to be explained by the action of particular mechanisms in certain contexts in order to constitute a theoretical base which enables prediction. The categories of quality elements need to be complemented with insights into the consumer's mind and the psychological processing of performance that actually drives the customers' evaluation. These workings are currently left as a "black box", seen in Figure 4.1, because the model only concerns what goes in and what comes out, not what occurs inside in terms of the underlying mechanisms. Opening this box and unraveling the processing of feature performance is most likely crucial to the progress of modern quality management in general and to the understanding of Attractive Quality and advances of attractive quality creation in particular. Without such a theoretical base, there is, in accordance with Deming's (2000) notion about the role of theory, nothing to revise, nothing to learn, and no possibility to actually manage attractive quality creation.

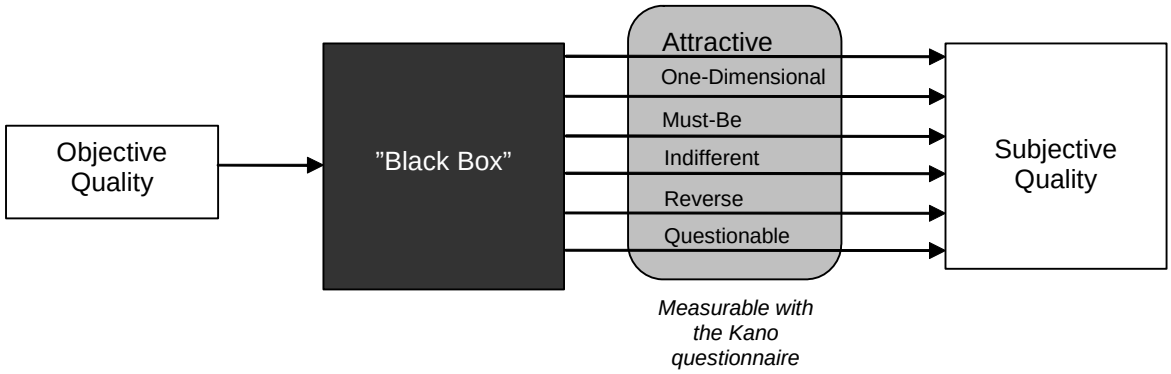


Figure 4.1 The processing psychology, which might explain the different relationships between objective and subjective quality is not currently addressed and basically left as a "black box". From Lilja & Wiklund (2006).

Practical Implications

The two obstacles constitute a starting point for new efforts within the field of attractive quality creation. The obstacles are currently reflected in practice as misunderstandings and an inability to manage attractive quality creation according to a proactive ideal.

Core Contribution

The paper contributes with the identification of two critical areas in need of intensified attention and future research in order to facilitate the development of practices such as engineering methods for the creation of Attractive Quality.

4.2 Paper B

Lilja, J. & Wiklund, H. (2007), "A Two-Dimensional Perspective on Attractive Quality", *Total Quality Management and Business Excellence*, Vol. 18, No. 6, pp. 667-679.

The second paper elaborates the theoretical foundation of Attractive Quality in order to find explanations, and enable prediction, of this highly desirable state of customer perception.

Purpose

The purpose of the paper is to contribute to clarifying the underlying mechanism and explanations given to Attractive Quality. These explanations are fundamental for the ability to develop quality practice, such as engineering methods, for the creation of Attractive Quality.

Methodology

The article is based on literature studies. The literature concerning the declared theoretical roots of the attractive quality concept are re-examined with the aim of strengthening and advancing the currently weak theoretical foundation of the concept.

Findings

The article presents and relates two different explanations to the attractive quality response. The explanations take the form of positing the underlying mechanisms which in a certain context generate the regularity of interest, which is Attractive Quality. The two mechanisms (M_1 & M_2) have been identified by studies of literature concerning the theory of attractive quality and its declared theoretical roots. The first mechanism (M_1), which also seems to be proposed by Kano himself (2001), can in fact be seen to be derived from cognitive theory, more specifically from the disconfirmation or comparison standards (CS) paradigm, explaining Attractive Quality by the exceeding of expectations or satisfaction of latent needs. A second mechanism (M_2) has however been identified in the declared need-based roots of the theory of attractive quality, the motivator-hygiene theory of Herzberg, with parallels to, for instance, Maslow's well known need-hierarchy, explaining Attractive Quality by the satisfaction of high-level needs. In short these two schools of thought seem to refer to the mechanisms that generate Attractive Quality as the satisfaction of latent and high-level needs, respectively. Three different types of Attractive Quality have been proposed to reflect the way that the two mechanisms might work alone or in tandem, as illustrated in Figure 4.2. Note that the horizontal axis, labeled "satisfy latent needs", refers to the operation of the first mechanism (M_1). The vertical axis, labeled "satisfy high-level needs", refers then to the operation of the second mechanism (M_2).

The proposed two-dimensional perspective of Attractive Quality indicates that there are three different types of Attractive Quality: "Life Enrichers" satisfying high-level needs, "Surprisers" satisfying latent needs, and "Attraction Boosters" satisfying high-level needs that also are latent. The three types of Attractive Quality are further described in Table 4.1.

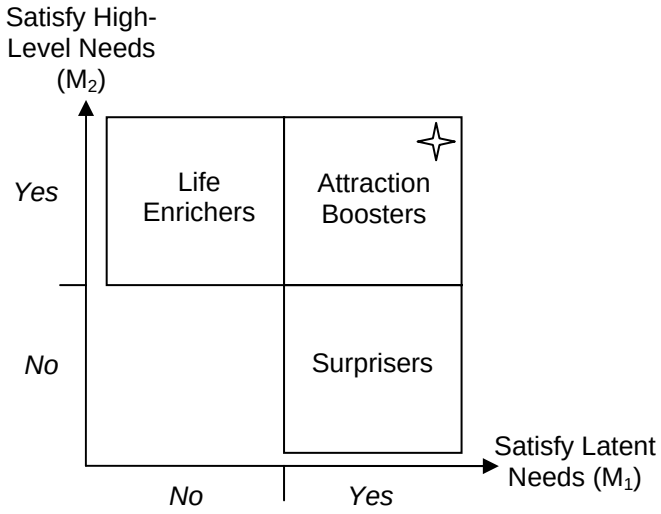


Figure 4.2 *A proposed two-dimensional matrix of attractive quality explanations with three types of Attractive Quality visualizing the difference between the explanations found in need-based and cognitive theory. From Lilja & Wiklund (2007).*

Table 4.1 *A description of the three proposed types of Attractive Quality together with examples given by the authors. From Lilja & Wiklund (2007).*

Label	**Description and Examples**
Life Enrichers	*High-level needs are satisfied* For example, the psychosocial product attributes of Harley-Davidson motorcycles satisfy high-level needs of certain customers such as freedom, masculinity, fellowship and self-fulfillment.
Attraction Boosters	*Latent high-level needs are satisfied* For example, the unexpected “fair-trade” mark on a coffee package satisfies the high-level need of being a person that highly values human rights, enhancing the self concept for certain customers. For example, the unexpected information that a specific tent was chosen for and successfully used during several expeditions to Mount Everest and the North Pole satisfies a latent high-level need of adopting an adventurous identity, contributing to self-actualization for certain customers.
Surprisers	*Latent needs are satisfied* For example, the unexpected physical product attribute of a built-in flash into a Konica camera reduces under-exposures and to their surprise reduces a problem for certain customers.

Practical Implications

The proposed two-dimensional perspective of attractive quality explanations offers new insights that are likely to advance the current strategies for creation of Attractive Quality in practice. One can furthermore conclude that the dimension, which seems to have been lost in the common explanation of the attractive quality response, the satisfaction of high-level needs and psychosocial product attributes, seems likely to have a large impact on the sought-after effects of customer loyalty and retention. As stated by Söderlund (2001), the satisfaction of high-level needs seems to give rise to strong loyalty. This kind of effect can be seen, for example among the very loyal customers of Harley-Davidson motorcycles, who associate the product with psychosocial attributes such as freedom, masculinity and fellowship (Charpentier, 1996; Schouten & McAlexander, 1995). These attributes contribute to the satisfaction of high-level needs, by others described as self-fulfillment (Paulsen, 1997). The extreme attraction perceived by these customers cannot be explained in terms of unexpected product attributes as traditionally has been argued as the drivers of Attractive Quality. In sharp contrast, many loyal riders seem to prefer the fact that Harley-Davidson motorcycles have remained unchanged throughout the years.

Core Contribution

This paper fulfils an identified need of a firmer theoretical foundation of the attractive quality concept. The proposed two-dimensional perspective of attractive quality explanations offers a new basis for the advancement of operational strategies and tactics on how to actually make attractive quality creation happen in practice.

4.3 Paper C

Lilja, J. & Wiklund, H. (2005), "Getting Emotional about Quality: Questioning and Elaborating the Satisfaction Concept", *Asian Journal on Quality*, Vol. 6, No. 3, pp. 38-55.

The third paper adds perspective to the theoretical foundation of the attractive quality concept by exploring what a change of target within TQM, moving focus towards the delighted customer, and away from the traditional target, the satisfied customer, really implies.

Purpose

The purpose of the article is to contribute to the advancement of measures currently used within TQM to capture the output of the organization in which it

is implemented, and to advance the linkage between quality practice and the perceived positive affect on external customers.

Methodology

The article is based on literature studies. Initially, the affective nature of customer satisfaction and quality are discussed based on previous research. Secondly, the feelings 'satisfied' and 'delighted' are related using the circumplex model which describes emotions in terms of two primary dimensions.

Findings

The major insight presented in the paper is that the traditional quality measure 'satisfied', in a number of studies, has shown to be interpreted as the absence of negative affect, which is the absence of negative emotional states. Even more interestingly, from a quality management perspective, is the notion that substantial evidence points to 'delighted' and 'satisfied' as being roughly independent, being qualitatively different. 'Delighted', also known as 'elated', emerges when tested with small divergence as a high positive affect (e.g. Russel, 1980; Watson and Tellegen, 1985), which is visualized as a top position on the vertical axis in Figure 4.3. 'Satisfied', on the other hand, appears to 'float' around in the lower parts of the upper left quadrant as seen in Figure 4.3. A number of studies have shown that 'satisfied' is more closely related with low negative affect than with high positive affect (e.g. Russel, 1980; Havlena et al., 1989). Note also that Watson & Tellegen (1985) in their reanalysis of 10 studies found that the word 'satisfied' was interpreted as the absence of negative affect. Nonetheless, the authors, without providing any clear motivation for doing so, graphically placed 'satisfied' between high positive affect and low negative affect in the circumplex, instead of at the low end of the negative affect axis. The understanding of the emotional meaning given to 'satisfied' is then perhaps best described, as the absence of being 'dissatisfied', as also found in the clustering solutions of Oliver & Westbrook (1993).

In sum, the positions in the circumplex in Figure 4.3 illustrate that the relationship between feeling 'satisfied' and 'delighted' form a considerable angle. The two feelings are very different. Previous studies even indicate that feeling satisfied and delighted are two independent concepts based on the results that reveal that satisfied is interpreted as absence of negative emotions. This further implies that the frequently proposed change of the final target of quality management, from a 'satisfied' to a 'delighted' customer, indeed is an extensive change of target. This change should reasonably be accompanied by a far-reaching re-examination of modern quality management as currently known.

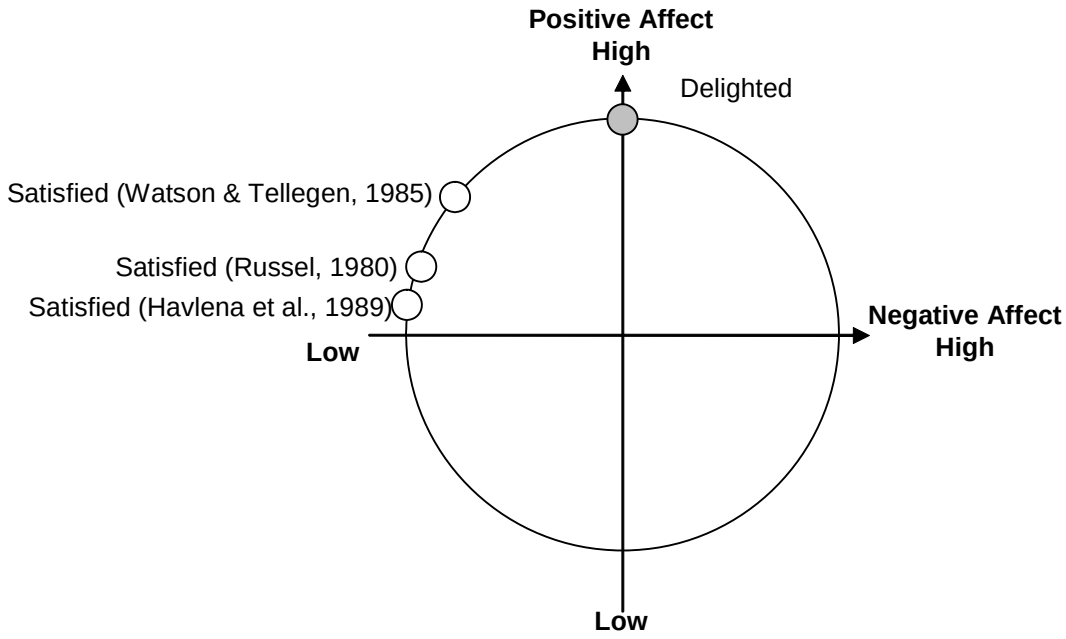


Figure 4.3 The Circumplex model for categorization of emotions showing the emotions satisfied and delighted, and indicating a roughly orthogonal relationship, rotated according to Watson & Tellegen (1985). From Lilja & Wiklund (2005a)

Practical Implications

The finding of the independence of positive and negative affect alone makes it reasonable to question many of the scales that are currently used to measure satisfaction - some seemingly limited to negative affect, which is unrelated to delight, and others demanding positive and negative affect to be mutually exclusive, which they evidently are not. As a result, unipolar scales are recommended that ask respondents to express to what extent each individual emotion describes their own subjective feelings.

From a wider perspective, it is frequently stated among professionals and researchers in the field of quality that "you get what you measure". The positions of delighted and satisfied in the affective circumplex then reveal that we are currently measuring something that is more or less independent of what we are aiming for. The implications of this identified misfit are likely to be extensive for quality practice.

Core Contribution

The paper contributes with insights concerning the roughly independent relationship between the emotions delighted and satisfied. The findings clearly make it reasonable to question many of the scales that are currently used in quality practice to capture customer value.

4.4 Paper D

Lilja, J. & Wiklund, H. (2005), "Quality Practice and External Customer Value: Critical Reflections on the Ideal Linkage", *Proceedings from the 8th QMOD Conference*, 29 June 2005, Palermo, Italy, pp. 281-292.

This paper broadens the perspective by putting Total Quality Management more directly in relation to competitive advantage. More specifically, it addresses the ideal linkage between quality practice and external customer value.

Purpose

The paper aims to contribute to strengthening the ideal linkage between quality practice and customer value.

Methodology

The article is based on literature studies. The linkage between quality practice and competitive advantage is elucidated based on a conceptualization of value or perceived value as seen in equation (1). The ratio seen can be referred to as the "value ratio".

$$Perceived\ Value = \frac{Perceived\ Positive\ Affect}{Perceived\ Negative\ Affect} \quad (1)$$

Findings

The elaboration provides three major insights. The first is the visualization of value creation in the Circumplex as two independent components as illustrated in Figure 4.4. The arrows in the figure clearly illustrate the two basic options for customer value creation. The first option is to decrease the denominator in equation (1). In decreasing the denominator, perceived negative affect, the typical emotional pattern follows that of negative motivations, i.e. from distressing to relaxing. A negative emotional state occurs first (the problem) followed by relief. This corresponds to informational motivation, as described by Rossiter & Percy (1987), and visualized by the negative motivations arrow in Figure 4.4. Completely uncorrelated is however the second option for customer value creation, to increase the numerator, perceived positive affect. The typical emotional pattern follows then that of positive motivations, i.e. from dull or neutral to delighted and exciting. This corresponds to transformational motivation, as described by Rossiter & Percy (1987), and is visualized as the orthogonal positive motivations arrow in Figure 4.4.

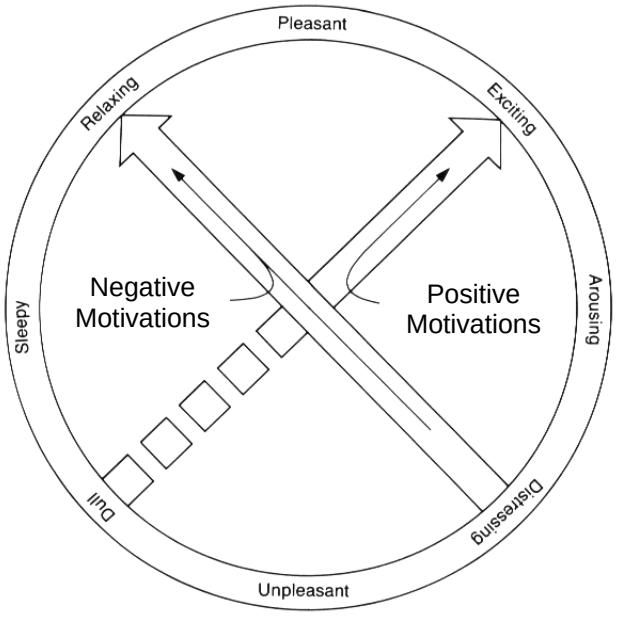


Figure 4.4 *A proposed graphical representation of the two essential options for customer value creation, based on the circumplex. The first option for value creation is to decrease the negative affect of the customer, which corresponds to a general path in accordance to the negative motivations arrow. The second option for value creation is to increase the perceived positive affect of the customer, which corresponds to the uncorrelated path illustrated by the positive motivations arrow. From Lilja & Wiklund (2005b).*

A second insight presented in the paper is the indication of a weak linkage between quality practice and positive motivations of external customers. Without delving into the mechanics of the tools and methodologies in detail, the point raised is that current quality practice seems to focus heavily on the denominator in the "value ratio" of external customers, being the reduction of perceived negative affect, which also can be referred to as negative motivations. The current focus can be seen as a reflection of early theories of motivation emphasizing drive reduction (negative motivations) as the governing principle. Modern theories emphasize, however, both drive reduction (negative motivations) and drive increase (positive motivations). The sole emphasis on drive reduction which is indicated in current quality practice would imply that people prefer to exist in a state of boring neutrality, whereas the dual emphasis recognizes that while people want to minimize pain, they want to maximize pleasure as well, to make life interesting and stimulating.

Practical Implications

The findings provides some support for the notion by Woodruff (1997) claiming that there is a need of corresponding operational tools for superior value creation in addition to the "tools of quality". More specifically, there is a need for identification and development of tools for quality practice focusing on the

increase of perceived positive affect, the numerator of the value formulation. It should be noted that the reasoning in general is equally applicable to the creation of value for external and internal customers.

Core Contribution

The paper provides new insights concerning the role of quality practice in the creation of external customer value. More specifically, it offers a fundamentally new area in need of intensified intention in order to strengthen the ideal linkage between quality practice and external customer value.

4.5 Paper E

Lilja, J., Eriksson, M. & Ingelsson, P. (2010), "Commercial Experiences from a Customer Perspective: Elaborated, defined and distinguished", *The TQM Journal*, Vol. 22, No. 3, pp. 285-292.

This paper raises the questions of how "commercial experiences" create customer value and can be defined.

Purpose

The purpose is to discuss the commercial experience concept from a customer perspective. The paper aims specifically at elaborating and defining commercial experiences as well as distinguishing them from goods and services.

Methodology

The article is based on literature studies.

Findings

The authors identify and propose "memorable" as the fundamental distinctive characteristic for commercial experiences. It is then suggested that memorable events are likely to be highly emotional events. Finally the two-factor structure of affect is used to show that the factor "strong engagement" then becomes a critical driver of commercial experiences as seen at the top in Figure 4.5 below.

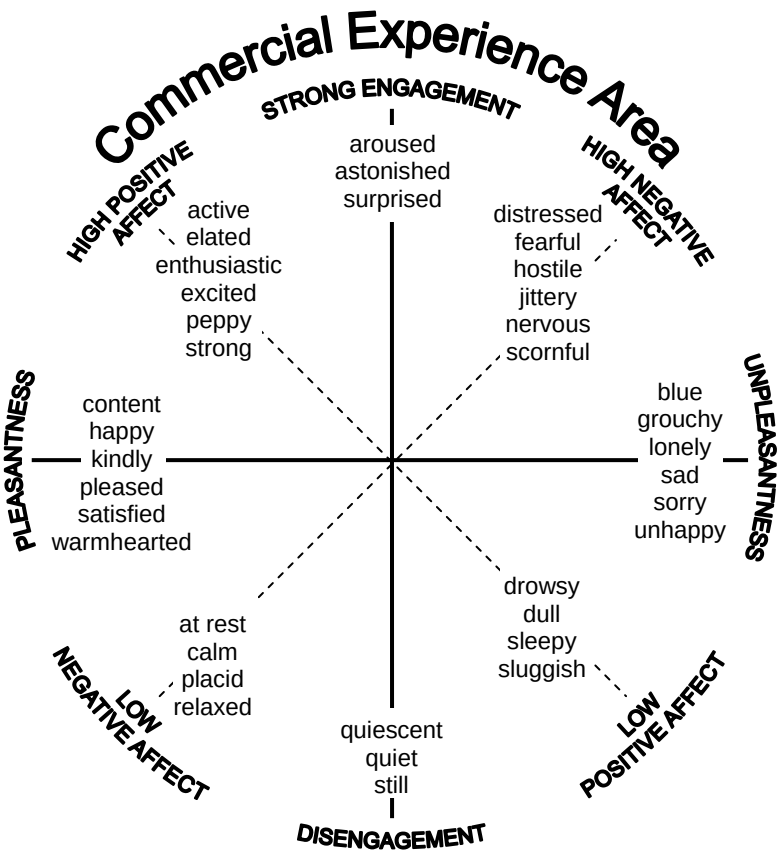


Figure 4.5 *The two-factor structure of affect, also known as the Affect Circumplex (selection of terms according to Watson & Tellegen, 1985). As illustrated, strong engagement appears as a critical driver of both high positive and high negative affect. From Lilja et al. (2010).*

In conclusion, it appears as if strong engagement drives high affect which is a key to making an event memorable and hence a commercial experience as illustrated in Figure 4.6.

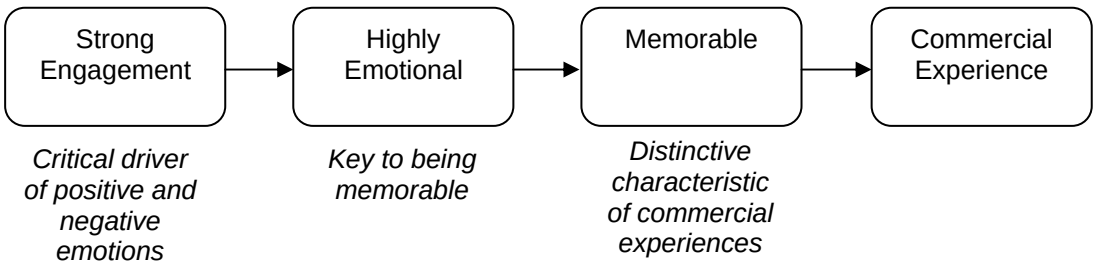


Figure 4.6 *How strong engagement drives high affect that is a key to make an event memorable and hence a successful commercial experience. From Lilja et al. (2010).*

As a result of the elaboration, the authors also propose a new definition of commercial experiences as “A memorable event that the customer is willing to pay for”. The definition “memorable event” indicates that the event is remembered. Commercial experiences must according to this definition leave indelible impressions. Memorable then implies, based on argumentation as referred to above, that the event also is likely to be strongly emotional to the customer and hence also likely to include strong engagement. It should, furthermore, be noted that what the customer “is willing to pay for” might change.

In addition the paper also presents three ways to distinguish commercial experiences from goods and services in terms of quality dimensions, customer affect and scope of offer.

Practical Implications

A better understanding of the so-called “experience economy” from a customer perspective will hopefully be of great value to any organization that strives for more than moderately emotional customer responses. The paper highlights the need to start approaching the design and delivery of commercial experiences as the design and creation of wanted memories. This has potentially large implications for how organizations work to realize commercial experiences in practice.

Core Contribution

The paper contributes to the understanding of commercial experiences from a customer perspective.

4.6 Paper F

Lilja, J. & Eriksson, M. (2010). “From Problem to Attraction Detection Study (ADS): Towards a new methodology for quality practice”, In Proceedings of the 13th QMOD Conference, 30 August - 01 September 2010, Cottbus, Germany.

This paper introduces a new methodology for attractive quality creation inspired by the traditional methodology of Problem Detection Study (PDS).

Purpose

The purpose of this paper is to highlight some major needs and opportunities for complementing the traditional Problem Detection Study (PDS) methodology. More specifically, the paper aims to strengthen the bond with the various aspects of perceived customer value as well as providing an even more efficient support for innovation in practice.

Methodology

The paper is based on literature studies and examples from the current application of PDS within industry.

Findings

As a result, the authors introduce and propose a new methodology called Attraction Detection Study (ADS). The ADS methodology counterbalance the traditional PDS methodology by focusing on the understanding and capturing of positive customer perceptions and motivations. In short this methodology of ADS can be illustrated as a three step process much like the PDS as illustrated in Figure 4.7 below.

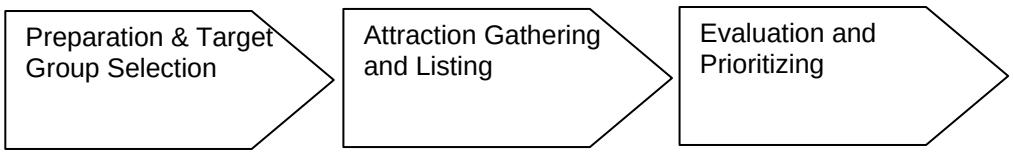


Figure 4.7 Attraction Detection Study as a three step process resulting in a prioritized list of attraction aspects to keep, refine and inspire future innovation. From Lilja & Eriksson (2010).

In developing and approaching the ADS methodology it is further concluded that it could be fruitful to look for inspiration in the methodology of Appreciative Inquiry that also focuses on positive motivations in the context of change management (e.g. Cooperrider et al., 2008; Cooperrider & Whitney, 2005; Whitney & Trosten-Bloom, 2002). In doing so, deciding upon the area of interest for the ADS could be inspired by the “the Affirmative Topic Choice” in Appreciative Inquiry. Furthermore, the attraction generation and listing could be

inspired by the one to one interviews and interview guides used within Appreciative Inquiry focusing on the description and sharing of “peak experiences” and “high points” in the past.

The criticism pointed at the sole use of PDS could likewise be directed at the sole use of ADS. Neither negative motivators and affect nor Positive motivators and affect, could alone be used as the driver for value innovation in an organization. It is therefore important to see PDS and ADS as two complementing methodologies that should be implemented and active together. In doing so, an organization will accomplish a good start for a systematic innovation system. Together with the accurate subsequent steps generalized as “Concept Generation”, “Evaluation and Selection of Concepts”, and “Realization and Implementation” the PDS and ADS will then unite to create what we would like to call a Value Innovation System (VIS). This system will have the potential to drive the innovation of an organization in a systematic way based on what their customers actually value.

Practical Implications

It is hoped that the introduced ADS methodology can become an efficient support for organizations aiming at value driven innovation and attractive quality creation in practice. It is furthermore hoped that the many organizations and companies currently applying PDS will be motivated to implement the ADS methodology as a complement to their current processes.

Core Contribution

The paper introduces the Attraction Detection Study methodology contributing to expanding quality practice towards systematic support for attractive quality creation.

4.7 Paper G

Lilja, J. & Wiklund, H. (2010) “The Need for Re-understanding TQM: Introducing the TQM Tree Model”, Submitted for publication.

This paper raises the need for a development of how TQM currently is understood, modeled and illustrated and introduces a new model called the TQM Tree Model as an attempt to answer this need.

Purpose

During the last ten years we have approached somewhat of a consensus on the fact that the TQM system is based on six critical elements, elements that could be understood as the most essential “ingredients” in an efficient and effective TQM system. This knowledge is however far from sufficient for being able to actually understand, practice or apply TQM. Simply put, in order to understand, practice or implement TQM, you need more insight into the “recipe” of TQM, including how the six elements actually function, relate, and contribute to the TQM system as a whole. From our perspective, the current models and pictures of TQM fail to provide such insight. The purpose of this paper is hence to help bring about a “re-understanding” of TQM by re-classifying and re-relating the six critical elements of TQM into a new TQM system model.

Methodology

The re-understanding of the critical elements of TQM is based on literature studies.

Findings

The paper presents a new TQM model called “the TQM Tree Model” that illustrates TQM as an organization-wide social system in which all members of the organization actively participate with the aim of driving and enabling behaviors for a systematic focus on, and continuous improvement of, customer value. The system is given meaning by two general attitudes that drive the aimed-for action and behaviors in the organization through and with three critical action enablers as illustrated in Figure 4.8 below. These three action enablers indicate that individuals in an organization applying TQM will intend to actually perform the aimed-for “TQM behaviors” when and if they evaluate these behaviors positively (*positive Behavioral Attitudes*), they believe that important others think they should perform them (*positive Subjective Norm*), and they believe that they have the means and opportunities to do so (*positive Perceived Behavioral Control*).

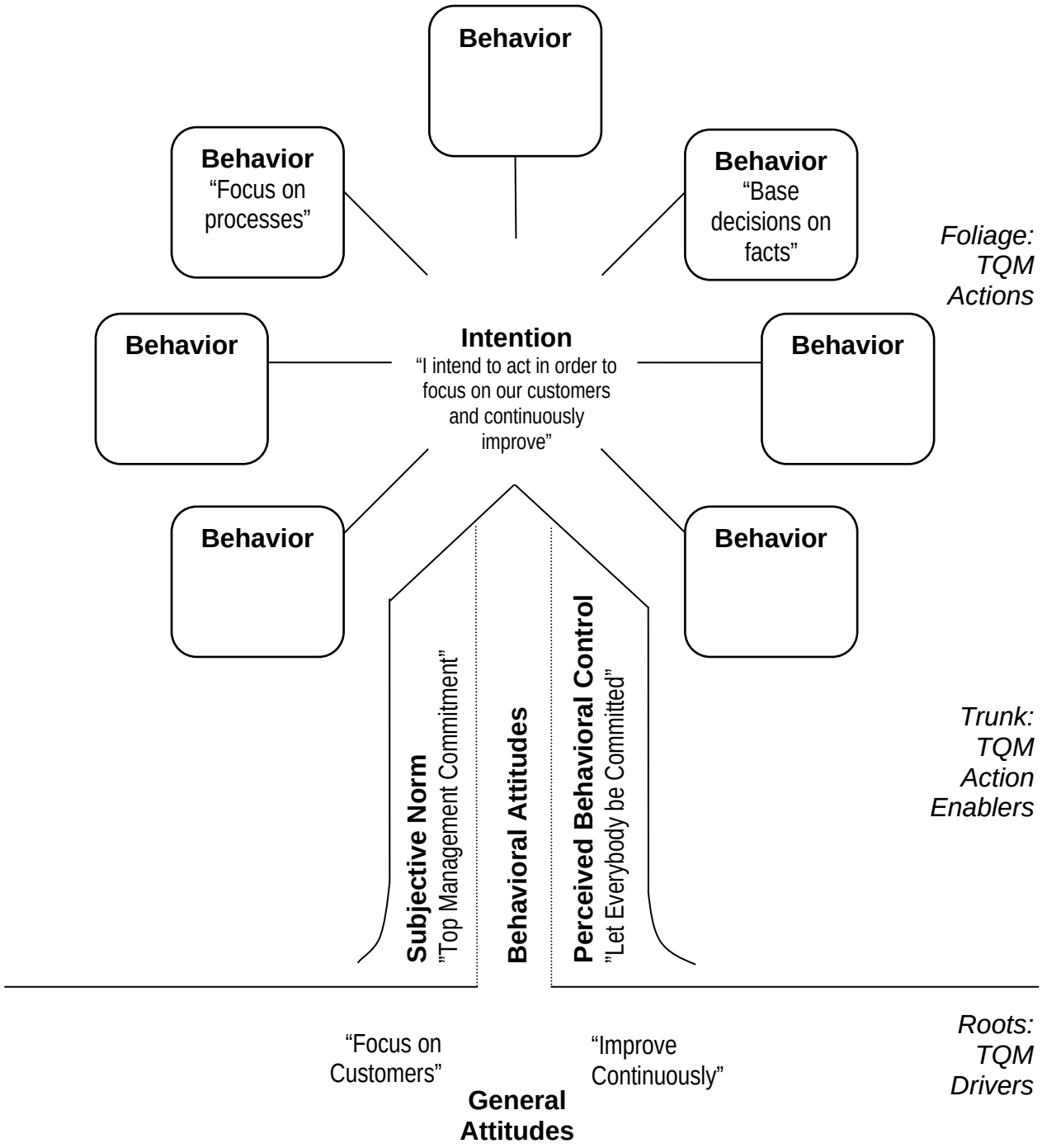


Figure 4.8 The TQM Tree Model illustrating the TQM system and the six critical elements of the TQM system in terms of two general attitudes that drive the attitudes towards each specific behavior and together with a subjective norm and perceived behavioral control drive the intention to act and perform the aimed-for TQM behaviors in the organization. From Lilja & Wiklund (2010).

Practical Implications

The resulting TQM Tree Model is aimed at providing a better understanding in general, and a more successful implementation of TQM in practice.

Core Contribution

The authors believe that the TQM Tree Model provides a base for a re-understanding of TQM, which might help in advancing TQM practice and research.

CHAPTER 5

CONCLUSIONS

This chapter presents conclusions concerning the three research questions together with conclusions of the thesis

5.1 Research Question 1

The first research question is *"What does the concept of Attractive Quality really imply?"*

Conclusions

A first conclusion drawn in Paper A is that the very meaning and underlying mechanisms of the concept Attractive Quality are far from clear. As highlighted in the paper, two obstacles were identified. The first one is the lack of a commonly understood attractive quality concept. The other obstacle is a lack of valid explanations as to the attractive quality response thus hindering prediction and a proactive strategy for attractive quality creation.

A conclusion in Paper B, that aims to bring more clarity into these two obstacles, is that there are two seemingly independent mechanisms involved in the generation of the attractive quality response, as seen in Figure 4.2. These two mechanisms are found in the declared need-based roots of the Kano Model and in the cognitive disconfirmation theories. The proposed explanations to the occurrence of the attractive quality response are that attractive quality elements satisfy high-level needs or latent needs. A combination of these two, seemingly different, mechanisms indicates that there are essentially three different types of

Attractive Quality: “Life Enrichers” satisfying high-level needs only, “Surprisers” satisfying latent needs only, and “Attraction Boosters” satisfying both, in terms of high-level needs that are latent. The mechanism that seems to have been lost in the common understanding and explanation of Attractive Quality, the satisfaction of high-level needs, seems likely to have a large potential for further exploration.

Finally, is was concluded in Paper C that a change of target in line with Attractive Quality, in terms of a transition from a “satisfied” to a “delighted” customer, indeed is an extensive change of target. This is illustrated in the Circumplex model in Figure 4.3. Previous studies even indicate that feeling “satisfied” and feeling “delighted” are unrelated, or nearly unrelated.

In sum, the concept of Attractive Quality implies three fundamental perspectives in terms of customer response and underlying mechanisms. These are a response in terms of strong positive affect, the satisfaction of latent needs, and/or the satisfaction of high-level needs, as formulated in answer one to three below (A1.1-A1.3)

A1.1: Strong positive affect

In terms of customer response, Attractive Quality can be understood as implying strong positive affect and emotions such as “delight”. A response showed to be unrelated or nearly unrelated to the response traditionally strived for in terms of the customer “feeling satisfied”.

A1.2: Satisfaction of latent needs

In terms of underlying mechanisms, Attractive Quality can be driven by the satisfaction of latent needs. Latent needs are unspoken needs.

A1.3: Satisfaction of high-level needs

In terms of underlying mechanisms, Attractive Quality can also be driven by the satisfaction of high-level needs. High-level needs are needs at a higher level of the need hierarchy.

5.2 Research Question 2

The second research question is *"Why should Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?"*

Conclusions

Looking for answers to the question of why Attractive Quality should be more systematically created within the system of TQM this thesis has found five answers, or arguments, as formulated below (A2.1-A2.5).

A2.1: Strengthen TQM's focus on customer value

The first argument found is that the creation of Attractive Quality, by its focus on strong positive affect, appears as a very fruitful complement to the traditional focus of TQM. This conclusion is clearly supported by the mechanisms involved in driving customer value as presented in Paper D. Attractive quality creation can then be understood as focusing on positive motivations, that is the creation of customer value by increasing the customer's positive affect towards emotional states such as "delight". In doing so, it complements current practice focusing on the reduction of negative affect and customer response, which also can be referred to as negative motivations. The sole emphasis on negative motivations, which is indicated in current quality practice, would imply that people prefer to exist in a state of boring neutrality, whereas a complementing emphasis on Attractive Quality recognizes that while people want to minimize pain, they want to maximize pleasure as well, to make life interesting and stimulating. As concluded in Paper C, it could furthermore be noted that the current output focus in terms of feeling "satisfied" is roughly independent of feeling "delighted" as in focus for the creation of Attractive Quality. That finding clearly makes it reasonable to claim that a more systematic creation of Attractive Quality appears, not only as a fruitful, but as a much needed addition to the current system of TQM.

A2.2: Make TQM more proactive

A second argument concerns the latent aspect of attractive quality creation as attractive quality creation can be driven by the satisfaction of latent customer needs in addition to the outspoken ones, as highlighted in Paper B. Such an addition would most likely strengthen the ability of TQM to support innovation as a proactive customer orientation focusing specifically on the latent needs and is argued as critical for the long term innovation ability of organizations. Narver et al. (2004) argue, for instance, that the concept of market orientation implies both responsive market orientation, which addresses the expressed needs of customers, and proactive market orientation, which addresses the unarticulated, latent needs of customers.

A2.3: Increase the commitment to and effectiveness of TQM

A third argument relates to the creation of Attractive Quality for internal customers. Such a creation could potentially strengthen the TQM system substantially as positive emotions (e.g. happiness, interest, anticipation) have been shown to broaden people's awareness and encourage novel, varied, and exploratory thoughts and actions. More simply put, it enables creative and flexible thinking, as shown by Fredrickson & Joiner (2002) and Fredrickson & Branigan (2005). Over time, this broadened behavioral repertoire builds skills and resources. A more systematic focus on the creation of Attractive Quality is then likely to make the internal processes for innovation and improvement more efficient, effective and engaging in organizations applying TQM.

A2.4: Lift the TQM perspectives above low-level needs

A fourth argument found is that the creation of Attractive Quality implies a stronger focus on high-level needs. Such a focus appears fruitful as high-level needs seems to be a key to building strong loyalty both concerning internal and external customers. As concluded in Paper B and stated by for example Söderlund (2001), the satisfaction of high-level needs seems to give rise to strong loyalty as seen, for example, among the very loyal customers of Harley-Davidson motorcycles.

A2.5: Make TQM relevant in the Experience Economy

A fifth argument, connected to the fourth, concerns the specific ability of TQM to systematically create memorable events and superior customer value as proposed in the literature concerning commercial experiences. This literature proposes a current shift or trend towards appreciation of the extraordinary in terms of commercial experiences that engage the customer in an inherently memorable way. As proposed in Paper E this kind of offer most likely involves and demands the creation of strong positive customer emotions and affect as in focus for the creation of Attractive Quality.

5.3 Research Question 3

The third research question is *"How could Attractive Quality be more systematically created within the system of Total Quality Management (TQM)?"*

Conclusions

A fundamental prerequisite for being able to answer this research question is a clear understanding of the system within which Attractive Quality is proposed to be realized, that is the system of Total Quality Management (TQM). For that reason Paper G, elaborated on the issue of how TQM can be understood and more clearly illustrated. As a result it was proposed that TQM can be understood and illustrated in terms of the TQM Tree Model as seen in Figure 4.8. The Tree

Model is here used as a structure for discussing how to create Attractive Quality more systematically within TQM. As a clarifying answer to the question of how Attractive Quality could be more systematically created within the TQM system this thesis has found six answers as formulated below (A3.1-A3.6).

A3.1: Clarify the target for the TQM system

A fundamental first step towards putting the creation of Attractive Quality into action within the TQM system appears to be a clearer expression of customer value in the TQM definition as well as in the aim of the TQM system. Concerning the quality definition it is here suggested that quality could be understood as "the ability to create customer value". As suggested in Paper G, the TQM system purpose could then be formulated so as "to drive and enable behaviors for a systematic focus on, and continuous improvement of, customer value in the organization". The TQM system goal could then likewise be formulated as "to provide superior customer value to the customers of the organization, including external and internal customers". Superior value is then seen as stemming from offering lower sacrifice than competitors of equal benefits or providing unique benefits that more than offset a higher sacrifice. Such a clear reflection of customer value would, given that the creation of customer value really is understood as including the creation of Attractive Quality, unite what historically have been argued to be two very distinct forms of quality into one. More specifically, it would unite freedom from deficiencies, which reduces customer dissatisfaction, and features which provide greater satisfaction (Juran, 1992). It should be noted that Juran (1992) then associates satisfaction with positive affect. A distinction seemingly also made by e.g. Deming (2000) suggesting absence of defects and performance as the two quality aspects. Such a unification and clear reflection of customer value would also enable a more direct and rapid learning and communication between the quality movement and other subjective fields concerned with developing the understanding of customer value, ensuring that quality organizations can keep up to date with the continuously increasing understanding of what constitutes and drives customer value.

A3.2: Broaden the meaning of "focus on the customers"

Closely related to the former measure is the development of the meaning given to the general attitudes of the TQM system and then especially "focus on customers". This general attitude, together with the meaning provided and included in it, would appear to be the most fundamental individual element in the entire TQM system. Basically since how we understand "focus on customers" and what the customer really values sets the direction for the other general attitude, as to what could be considered an improvement, as well as the direction and goal for the entire TQM system. As introduced in Paper D and argued in answer A2.1 above, the current understanding of "focus on customers"

within TQM can be seen as a reflection of early theories of motivation emphasizing "drive reduction" (negative motivations) as the governing principle. Modern theories emphasize, however, both "drive reduction" (negative motivations) and "drive increase" (positive motivations). The sole emphasis on drive reduction which is indicated in current quality practice would imply that people prefer to exist in a state of boring neutrality, whereas the dual emphasis recognizes that while people want to minimize pain, they want to maximize pleasure as well, to make life interesting and stimulating.

A3.3: Start measuring against the target

Another most important measure for realizing attractive quality creation within the TQM system relates to what often is referred to as the methodologies and tools of the TQM system, more specifically the tools used to capture the output of the system. As concluded in Paper C, the independence of positive and negative affect alone makes it reasonable to question many of the scales that are currently used to measure and capture the quality delivered from TQM systems. Many scales are seemingly limited to negative affect, which is almost unrelated to the sought-after affects such as delight, and yet other scales demand positive and negative affect to be mutually exclusive, which they evidently are not. In realizing the creation of Attractive Quality within the TQM system it appears to be vital to start using unipolar scales that ask respondents to express to what extent each individual emotion describes their own subjective feelings. It can furthermore be concluded that the specific word 'satisfied', traditionally used for the measurement of quality, is most often given the meaning of the absence of negative affect, i.e. not dissatisfied. The use of unipolar scales would probably provide the TQM system with the vital information needed to actually be able to advance towards continuously improved customer value in practice.

A3.4: Start eliciting high-level needs

In refining the behaviors of the TQM system to capture the positive and high-level needs it would seem to be most promising to start by learning more from others. Learning from others includes e.g. learning from the successful methodology of "appreciative inquiry" that is focused on capturing and making sense of the positive in terms of strength-based change management. In doing so it also seems promising to implement methodologies that intuitively could complement the existing ones. One such methodology is the Attraction Detection Study (ADS) introduced in Paper F, aiming at elicitation of positive customer response, affect and motivations in terms of e.g. high points and peak experiences. This methodology could be implemented as a complement to the traditional Problem Detection Study (PDS). In eliciting the customer's high level needs it also seems promising to take a closer look at the growing interest in commercial experiences and the arguments and the advanced perspectives on customer value that comes with them. Stressing for instance the memorable,

emotional and strong engagement as critical aspects in superior value creation as highlighted in Paper E and illustrated in Figure 4.6.

A3.5: Start eliciting latent needs

In refining the behaviors of the TQM system to capture the positive and latent needs it also would be worthwhile to start by learning more from others. Learning from others includes e.g. learning from one of the world's most successful design firms in terms of IDEO that has developed a design methodology and "Method Cards" aimed at specifically capturing the latent through different forms of observations, supporting a proactive market orientation, as stressed by, for instance, Narver et al. (2004).

A3.6: Move towards a dualistic organization and logic

Finally, a more systematic creation of Attractive Quality within the system of TQM involves a major issue of cultural and organizational nature. In line with the classic work of Schumpeter (1934), TQM has to start reflecting that innovation and the creation of Attractive Quality needs a leadership which substantially differs from the reactive managing and continuous improvement of what already exists. In terms of TQM a dominant reactive culture focused on the maintaining and continuous refinement of the existing business can retard development of the new innovative ideas and businesses that could create Attractive Quality and the livelihood of tomorrow. To successfully manage both the traditional creation of Must-be Quality in terms of systematically reducing negative affect and motivations of the customers, and the creation of Attractive Quality, in terms of exploring latent and high-level needs of the customers and innovate for their fulfillment, the TQM system must probably incorporate both a C-logic and E-logic as proposed by Magnusson (2003). A duality much like the two very different types of operations referred to as exploration and exploitation by March (1991). Maintaining equilibrium between exploration and exploitation activities is argued as crucial to guaranteeing the survival of a system.

5.4 Conclusions of the Thesis

As stated by Hellsten & Klefsjö (2000), the evolution of quality management has reached a point where quality is being viewed as a basis for competition. Quality management has developed from a narrow, manufacturing-based focus to TQM – an approach which nowadays is applied to all business functions and co-workers with broader implications for management. However, the TQM system has to continuously be scrutinized and improved both concerning its aim as well as the elements set up to achieve it in practice.

Towards a Positive Shift?

As highlighted and concluded in this thesis it would appear that a more systematic creation of Attractive Quality within the TQM system implies much more than merely a shift of goal from a satisfied to a delighted customer. It implies a major shift of the TQM system as currently applied. Furthermore, this shift appears to be motivated when acknowledging that TQM aims to drive and enable behaviors that facilitate systematic focus on, and continuous improvement of, customer value delivered by the organization in which it is implemented. As such, TQM should contribute to all mechanisms involved in the generation of customer value. More specifically, it should contribute to both decreasing negative affect, as well as to increasing the positive affect of the customer. Closely related to this, TQM should contribute to both a reactive and a proactive market orientation directed towards both outspoken and unspoken customer needs.

Putting it simply, from a system perspective the current TQM system can be understood as properly facilitating and supporting merely half of what now is declared as the aim of the TQM system. One of the reasons for this distortion seems to be the fact that the purpose of the TQM system, in terms of increased quality, historically has been seen as equal to increased customer satisfaction, which in turn has shown to be interpreted by customers as the absence of negative affect. The current TQM system might hence be seen as result of a continuous development and refinement directed towards the decrease of negative affect and negative response of external customers, reflecting an unspoken definition of quality as “the ability to minimize the perceived negative affect of the customer”. However, as highlighted in this thesis, there is another substantial component involved in the generation of customer value, the component of positive affect including emotions such as delight.

A Decision to Make

The purpose of this thesis is to explore the phenomenon and vision of Attractive Quality in order to strengthen the ability to decide whether to realize it. With the conclusions now presented concerning what, why, and how, it is hoped that the quality community as a whole as well as each and every organization working with the TQM system have been given some answers that can help in making the decision whether to realize the creation of Attractive Quality as part of the TQM system or not.

The decision can be seen as a decision with implications for what TQM should be in the future. If TQM really is to facilitate the creation of customer value a more systematic realization of Attractive Quality with the system seems both natural and motivated. On the other hand if TQM is to be limited to the reduction of problems and negative response and affect, such a realization would be unnecessary and confusing. This possible limitation would however also risk limiting the value and spread of TQM as a phenomenon as the positive motivations, affect and responses seems to be of great importance to the creation of customer value in many industries today, such as within the many industries often referred to as the so called “experience economy”.

If realizing a more systematic creation of Attractive Quality within the TQM system, it could be noted that it would bring a whole new additional agenda for the focus of improvements. In parallel to the continuous strive for zero-defects, zero-waste and zero-complaints as currently advocated, the creation of Attractive Quality points at an alternative way of increasing the competitiveness of the organization. More specifically, there is a possibility to increase the value delivered to customers by aspects that increase the positive response and affect perceived by customers. This dimension offers an alternative area for improvements for companies that today are seen as world-class in terms of quality management, companies that are successfully applying TQM but then experience a standstill. In contrast to the current focus on negative affect and response, where the target can be seen as zero and hence reachable, at least in theory, the second dimension, perceived positive affect and response, seems to lack an upper limit and is likely to offer wide possibilities for differentiation.

5.5 The Research Process in Retrospect

In retrospect, the research process generating this thesis has been strongly influenced by my background as a designer and product developer. The purpose of this thesis, as an issue of "redesigning" the system of TQM, has in fact been tackled with a lot of inspiration from the front-end activities in a design approach. A design approach usually starts with an intense phase of knowledge creation, usually referred to in terms such as "understand" and "observe" (Kelley, 2001) or "establish product specifications" (Ulrich & Eppinger, 1995). This phase normally aims to understand what to achieve and involves the exploration of existing product/products, in this case the current TQM system. The phase also involves striving towards an understanding of the context in which the "product" is aimed to serve, here including aspects such as competitive advantage and customer value. This initial phase is then normally followed by the more creative phase of "concept generation" (Ulrich & Eppinger, 1995) and "visualization" (Kelley, 2001). A phase involving a creative as well as a systematic search for solutions to obtain in reality what previously has been set up as wanted from the "product" to be. In this case the concept and realization of Attractive Quality was identified as being closely related to the renewal of the TQM system that was sought for. The ability to integrate the concept was however dependent upon a deeper knowledge concerning the nature of both Attractive Quality and the current TQM system. It was also dependent upon an extensive generation and identification of specific behaviors, such as methodologies and tools, with the potential to support attractive quality creation in practice.

The design approach has furthermore brought along with it two ideals to the research process in terms of a constant focus on the achievement of a final product as well as a strong preference for visualization and prototyping. This prototyping preference has included an ambition to learn by the use of evaluate and refine loops in order to refine the product towards perfection, mostly shown during the later parts of the process. The strong focus put on the achievement of a final product has on the other hand clearly been driving priorities made during the process. For instance, when the insights from secondary data, in terms of literature studies within related fields, showed to be surprisingly fruitful for the progress towards a final product, the actual publishing of the extensive primary data collected during the research process was given a lower priority and put on hold. This priority was driven by the ideal and ambition to use the available resources, here in terms of time, so as to reach as far as possible towards a strong final product.

In retrospect, it is easy to assume that a more ideal situation would have been a closer collaboration with an organization now applying TQM, to observe and learn from. Even though such an idea at first might sound appealing it is

questionable if it would have made the design process more effective, accurate or successful due to two important aspects. The first one is the innovativeness of the "product" under development, which is a redesigned TQM system. Being too closely involved in a current TQM system might very well have reduced the ability to innovate and provoke the existing system during the design process conducted. In making a rough comparison, it would have been like designing the first cell phone in close collaboration with a traditional call center using telephone "by wire". The current TQM system has furthermore already been the subject of extensive research providing a rich material of secondary data on the nature of the current TQM system that has been used as input and inspiration for the design process here conducted.

The second aspect that casts doubt on such an idea is the need for "tangible prototypes". The ability to actually communicate, evaluate and refine the realization of Attractive Quality within the system of TQM depends upon the existence of "prototypes" of various kinds, such as new hands-on quality measurement tools or product development methodologies to put out there for trial in practice. The idea of involving and using organizations now applying TQM as a test setting hence demands that the design process has progressed into a state of generating "tangible prototypes", a state not reached until the very end of the research process here accounted for.

When it comes to the fundamental choices and crossroads during this research process, one choice appears as the single most influential one now in retrospect. That is the choice of what practice to initially focus on as part of the more recent phase with prototype development. A highly motivated area of prototyping that early came up concerns the area of measurements used to capture quality and customer value; that is measures for capturing the goal fulfillment of the TQM system, as applied in an organization. The classic saying "you get what you measure" would have motivated such a priority as one could expect that applied TQM systems as a whole will start transforming towards attractive quality creation when and if a measurement including positive responses and affect is used for guidance of for instance continuous improvement activities.

My background as a designer and product developer together with a pragmatic ideal motivated the chosen strategy. Not to make that limitation but to also move forward, beyond the issue of capturing what to achieve, towards an exploration also of how to actually achieve it during, for instance, product development and planning in practice. The choice was in line with my systems approach, and the associated ambition of treating the TQM system as a whole. In retrospect, this choice broadened the scope of this thesis to an extent that made the research process more demanding.

CHAPTER 6

DISCUSSION AND FUTURE RESEARCH

This chapter consists of a discussion, aimed at putting the conclusions of the thesis in a wider perspective, together with some aspects to consider for future research.

6.1 A Wider Perspective

In a wider perspective, the focus on negative affect and problems in the current application of the TQM system can be seen as part of more extensive phenomena in today's Western society and educational system, namely the domination of thinking in terms of problem-solving. As stated by De Bono (2000), all thinking is regarded as problem-solving in North American psychology. A problem then means that something is wrong and we want to put it right. However, this type of thinking is far from what is needed to create value in terms of increasing the perceived positive affect of our customers. The creation of positive affect is essentially different as it does not start with a problem, it rather emphasizes possibilities, "what-can-be". This is a thinking that does not merely seek to solve problems "what-is", but also brings about new things that have not yet existed. This is a type of thinking that enables an organization applying TQM to increase the delivered customer value for an offer that has no customer complaints whatsoever.

Referring to biology, where the principal coming-together of system ideas occurred, according to Flood & Carson (1993), one way of approaching the need for a duality is in terms of natural mutation and selection, terms frequently used in evolutionary economics (see e.g. Foster, 2000). These natural processes can in quality terms be seen as processes of generating and reducing variety, as convergent and divergent processes. It seems clear that the current application of TQM is heavily focused upon just one of them. Montgomery (2001) even defines quality improvement as the reduction of variability in processes and products, and quality as inversely proportional to variability.

The widening of the agenda for TQM, in terms of also aiming for the increase of the perceived positive affect of our customers, might also increase the interest in quality work and TQM in general. One reason why quality is looked upon with such a lack of interest and commitment among people subjected to quality work in organizations today might be that quality practice has a focus on negative motivations. It is simply not stimulating to spend all day with the single focus of reducing complaints, problems and defects.

A Cultural Perspective

On a comprehensive level it could be noted that many of the perspectives, theories and conclusions of this thesis are rooted in the context of the Western world and western culture, such as the reasoning behind the "Experience Economy". It is therefore uncertain how fruitful the conclusions are as inspiration for management systems and organizations operating in other cultural contexts.

6.2 Continuing along the Intended Path

The present and forthcoming research of the author is and will primarily focus on the downward direction in the abduction process; that is, empirical tests and the contribution of new as well as refined methodologies and tools for quality practice. In this context, the author has already been involved in a number of empirical tests and studies, briefly accounted for in Section 3.6 including:

- The development and empirical evaluation and refinement of a new GPS-supported methodology for behavioral mapping of customers, aimed to elicit and grasp both latent needs and high point experiences of customers.
- The development and empirical evaluation and refinement of a set of new Design for Experience (DFEx) tools aimed at supporting and inspiring the design process of commercial experiences.
- The development and empirical evaluation and refinement of a process in order to use appreciative inquiry as a methodology for user-involved service innovation.

- The development and empirical evaluation and refinement of a new mapping tool for capturing and illustrating the high level needs of customers involved in leading and innovative international offers in the experience economy.

Future research of the author will also include the development of complementing TQM system models as well as new approaches to measuring quality in practice.

6.3 Hopes for the Future

More generally it is hoped that the research conducted in this thesis can inspire future quality research in at least the following four ways:

First, and most fundamentally it is hoped that this research can inspire an increased interest and increased understanding of the importance of the output perspective within quality management in general. We cannot design quality initiatives or even tell if they are working if we cannot capture or understand what these initiatives aim at creating in terms of customer value. It is therefore hoped that there will be explorative future research with focus on the capturing of customer value.

Secondly, it is also hoped that this research will increase interest in truly approaching TQM as a system and contribute to the understanding of this system by the development of complementing system models and simulations. Future research with a more explorative, provocative and prototyping attitude to what the TQM system should be would be a welcome development as would research addressing how TQM really updates itself, if it actually does, not to mention a continuous evaluation and refinement of every component of the system.

Thirdly, it is hoped that this research can inspire and highlight the worth of approaching related subject areas in search for knowledge and external perspectives that can be used for evolving the initiatives and the subject area of quality management. It is hence hoped for more future research that is truly interdisciplinary, contributing to an increased understanding of the central initiatives and phenomena at interest within quality management.

Fourthly, it is hoped that this research can inspire scholars within the field of quality management to put more effort into “theorizing”. That is to relate to, improve, and create theory. It is hence hoped that future research could include a more vital discourse addressing, evaluating, and refining the central theories and assumptions underlying the field in which we are active.

REFERENCES

Abernathy, W. J. (1978), *The Productivity Dilemma: Roadblock to Innovation in the Automobile Industry*, Baltimore, Md., Johns Hopkins U.P.

Adler, P. S., Goldoftas, B. & Levine, D. I. (1999), "Flexibility versus efficiency? A case study of model changeovers in the Toyota production system", *Organization Science,* Vol. 10**,** No. 1, pp. 43-68.

Ajzen, I. (2005), *Attitudes, Personality and Behavior,* 2. ed, Maidenhead, Open University.

Alderfer, C. P. (1969), "An empirical test of a new theory of human needs", *Organizational Behavior and Human Performance,* Vol. 18**,** No. May, pp. 142-175.

Alderfer, C. P. (1972), *Human Needs in Organizational Settings*, New York, Free Press.

Alvesson, M. & Sköldberg, K. (1994), *Tolkning och reflektion: Vetenskapsfilosofi och kvalitativ metod (Interpretation and Reflection)*, Lund, Studentlitteratur.

Antonides, G. & Raaij, W. F. v. (1998), *Consumer Behaviour: A European Perspective*, Chichester, Wiley.

Arbnor, I. & Bjerke, B. (1997), *Methodology for Creating Business Knowledge,* 2. ed, Thousand Oaks, Calif., Sage.

Argyris, C. (2000), *The relevance of actionable knowledge for breaking the code*. IN Beer, M. & Nohria, N. (Eds.) *Breaking the Code of Change.* Harvard Business School Press, Boston, Massachusetts.

Argyris, C. & Schön, D. A. (1978), *Organizational Learning: A Theory of Action Perspective*, Reading, Mass., Addison-Wesley.

Aristoteles & Ross, W. D. (1924), *Aristotle's Metaphysics*, Oxford, Clarendon.

Arthur, W. B. (1988), *Self-reinforcing mechanisms in economics*. IN Pines, D., Arrow, K. J. & Anderson, P. W. (Eds.) *The Economy as an Evolving Complex System: the proceedings of the evolutionary paths of the Global Economy Workshop, held September, 1987 in Santa Fe, New Mexico,* Addison-Wesley, Redwood City, Calif.

Bagozzi, R. P., Baumgartner, H. & Pieters, R. (1998), "Goal-directed emotions", *Cognition & Emotion,* Vol. 12**,** No. 1, pp. 1-26.
Bagozzi, R. P. & Dholakia, U. (1999), "Goal setting and goal striving in consumer behavior", *Journal of Marketing,* Vol. 63**,** No. 4, pp. 19-32.
Bagozzi, R. P., Gopinath, M. & Nyer, P. U. (1999), "The role of emotions in marketing", *Journal of the Academy of Marketing Science,* Vol. 27**,** No. 2, pp. 184-206.
Banathy, B. H. (1992), *A Systems View of Education: Concepts and Principles for Effective Practice*, Englewood Cliffs, N.J., Educational Technology Publ.
Banathy, B. H. (1996), *Designing Social Systems in a Changing World*, New York, N.Y., Plenum Press.
Barney, J. B. (1986), "Organizational culture: can it be a source of sustained competitive advantage?", *Academy of Management Review,* Vol. 11**,** No. 3, pp. 656-665.
Bateson, J. E. G. & Hoffman, K. D. (1999), *Managing Service Marketing*, Fot Worth, The Dryden Press.
Berger, C., Blauth, R., Bolster, C., Burchill, G., DuMouchel, W., Pouliot, F., Richter, R., Rubinoff, A., Shen, D., Timko, M. & Walden, D. (1993), "Kano's methods for understanding customer-defined quality", *The Center for Quality Management Journal,* Vol. 2**,** No. 4, pp. 3-36.
Bergman, B. & Klefsjö, B. (2003), *Quality, from Customer Needs to Customer Satisfaction,* 2 ed, Lund, Studentlitteratur.
Bergman, B. & Klefsjö, B. (2010), *Quality, from Customer Needs to Customer Satisfaction,* 3 ed, Lund, Studentlitteratur.
Bernstein, R. J. (1983), *Beyond Objectivism and Relativism: Science, Hermeneutics, and Praxis*, Oxford, Basil Blackwell.
Berryman, M. L. (2002), "DFSS and big payoffs", *Six Sigma Forum Magazine,* Vol. 2**,** No. 1, pp. 23-28.
Bertalanffy, L. v. (1968), *General System Theory: Foundations, Development, Applications*, New York, Braziller.
Biggs, J. B. (2003), *Teaching for Quality Learning at University: What the Student Does,* 2. ed ed, Phildelphia, Pa., Society for Research into Higher Education : Open University Press.
Blanchard, B. S. & Fabrycky, W. J. (2006), *Systems Engineering and Analysis,* 4. ed, Upper Saddle River, N.J., Pearson Prentice Hall.
Boaden, R. J. (1997), "What is total quality management... and does it matter?", *Total Quality Management & Business Excellence,* Vol. 8**,** No. 4, pp. 153-171.
Boulding, K. E. (1981), *Evolutionary Economics*, Beverly Hills, Sage.
Boyd, R. & Richerson, P. J. (1985), *Culture and the Evolutionary Process*, Chicago, Ill., Univ. of Chicago P.
Bradburn, N. (1969), *The Structure of Psychological Well-being*, Chicago, Aldine.
Brown, J. S. & Duguid, P. (2001), "Knowledge and organization: a social-practice perspective", *Organization Science,* Vol. 12**,** No. 2, pp. 198-213.
Brunsson, N. (1982), *Företagsekonomi - sanning eller moral?: Om det normativa i företagsekonomisk idéutveckling (Business Economics - Truth or Ethics)*, Lund, Studentlitt.
Bryman, A. & Nilsson, B. (2002), *Samhällsvetenskapliga metoder (Methods for Social Science),* 1. uppl. ed, Malmö, Liber ekonomi.
Burns, T. & Stalker, G. M. (1961), *The Management of Innovation*, London, Tavistock.

Cadotte, E. & Turgeon, N. (1988), "Dissatisfiers and satisfiers: suggestions from consumer complaints and compliments", *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior,* Vol. 1**,** No., pp. 74-79.
Cameron, K. & Sine, W. (1999), "A framework for organizational quality culture", *Quality Management Journal,* Vol. 6**,** No. 4, pp. 7-25.
Chamberlain, K. (1988), "On the structure of subjective well-being", *Social Indicators Research,* Vol. 20**,** No. 6, pp. 581-604.
Chang, H. H. & Lu, P. W. (2009), "Using a triz-based method to design innovative service quality - A case study on insurance industry", *Journal of Quality,* Vol. 16**,** No. 3, pp. 179-193.
Charpentier, C. (1996), *Live to Ride*, Eslöv, Gondolin.
Chen, L. H. & Lin, H. C. (2007), "Integrating Kano's model into E-learning satisfaction". *In the Proceedings of the IEEM 2007: 2007 IEEE International Conference on Industrial Engineering and Engineering Management*.
Chen, L. S., Hsu, C. C. & Chang, P. C. (2008), "Developing a TRIZ-Kano model for creating attractive quality". *In the Proceedings of the 2008 International Conference on Wireless Communications, Networking and Mobile Computing, WiCOM 2008*.
Chen, S. C., Chang, L. & Huang, T. H. (2009), "Applying six-sigma methodology in the Kano quality model: An example of the stationery industry", *Total Quality Management and Business Excellence,* Vol. 20**,** No. 2, pp. 153-170.
Chen, Y. H. & Su, C. T. (2006), "A Kano-CKM model for customer knowledge discovery", *Total Quality Management and Business Excellence,* Vol. 17**,** No. 5, pp. 589-608.
Clemmer, J. (1990), "The three rings of perceived value", *Canadian Manager,* Vol. 15**,** No. Summer, pp. 12-15.
Clemmer, J. (1992), *Firing on all Cylinders: The Service/Quality System for High-Powered Corporate Performance*, Homewood, IL, Business One Irwin.
Clifford, L. (2001), "Why you can safely ignore Six Sigma", *Fortune,* Vol. 143**,** No. 2, p. 140.
Cohen, J. B. & Areni, C. S. (1991), *Affect and consumer behaviour*. IN Robertson, T. S. & Kassarjian, H. H. (Eds.) *Handbook of Consumer Behavior.* Prentic-Hall, Englewood Cliffs, NJ.
Cole, R. E. (2003), "New organizational designs for sustainable quality improvement". *In Proceedings of the 6th QMOD Conference,* Paris, France, October.
Cooperrider, D. L. & Whitney, D. K. (2005), *Appreciative Inquiry: A Positive Revolution in Change*, San Francisco, CA, Berrett-Koehler.
Cooperrider, D. L., Whitney, D. K. & Stavros, J. M. (2008), *Appreciative Inquiry Handbook: For Leaders of Change*, Brunswick, OH :, Crown Custom Publishing, Inc.
Costanza, R. (1996), "Ecological economics: reintegrating the study of humans and nature", *Ecological Applications,* Vol. 6**,** No. 4, pp. 978-990.
Coyne, K. P. (1986), "Sustainable competitive advantage: what it is, what it isn't", *Business Horizons,* Vol. 29**,** No. 1, pp. 54-61.
Csikszentmihalyi, M. (1990), *Flow: The Psychology of Optimal Experience*, New York, Harper & Row.
Dahlgaard, J. J., Kristensen, K. & Kanji, G. K. (1994), *The Quality Journey: A Journey Without an End*, Abingdon, Carfax.
Dahlgaard, J. J., Kristensen, K. & Kanji, G. K. (2002), *Fundamentals of Total Quality Management: Process Analysis and Improvement*, Cheltenham, Nelson

Thornes.
Dahlgaard, J. J., Schütte, S., Ayas, E. & Dahlgaard-Park, S. M. (2008), "Kansei/affective engineering design: A methodology for profound affection and attractive quality creation", *TQM Journal,* Vol. 20**,** No. 4, pp. 299-311.
Dahlsten, F. (2003), "Avoiding the customer satisfaction rut", *Sloan Management Review,* Vol. 44**,** No. 4, pp. 73-77.
Dale, B. G. (1999), *Managing Quality,* 3. ed, Oxford, Blackwell.
Dale, B. G. (2003), *Managing Quality,* 4. ed, Malden, Mass., Blackwell.
Dale, B. G., Wu, P. Y., Zairi, M., Williams, A. R. T. & Van der Wiele, T. (2001), "Total Quality Management and theory: an exploratory study of contribution", *Total Quality Management,* Vol. 12**,** No. 4-5, pp. 439-449.
De Bono, E. (2000), *New Thinking for the New Millennium*, London, Penguin.
Dean, J. W. & Bowen, D. E. (1994), "Management Theory and Total Quality - Improving Research and Practice through Theory Development", *Academy of Management Review,* Vol. 19**,** No. 3, pp. 392-418.
Deming, W. E. (2000), *The New Economics: For Industry, Government, Education,* 2. ed, Cambridge, Mass., MIT Press.
Diener, E. & Emmons, R. A. (1985), "The independence of positive and negative affect", *Journal of Personality and Social Psychology,* Vol. 47**,** No., pp. 1105-1117.
Edvardsson, B. (2000), *New Service Development and Innovation in the New Economy*, Lund, Studentlitteratur.
Edvardsson, B., Øvretveit, J. & Thomasson, B. (1994), *Quality of Service: Making it Really Work*, London, McGraw-Hill.
Egloff, B. (1998), "The independence of positive and negative affect depends on the affect measure", *Personality and Individual Differences,* Vol. 25**,** No. 6, pp. 1101-1109.
Erevelles, S. & Leavitt, C. (1992), "A comparison of current models of consumer satisfaction/dissatisfaction", *Journal of consumer Satisfaction, Dissatisfaction, and Complaining Behavior,* Vol. 5, pp. 104-114.
Eriksson, H. (2003), Organisational value of participating in quality award processes. *Doctoral thesis / Luleå University of Technology, 2003:42.* Luleå,.
Eriksson, M., Ingelsson, P. & Lilja, J. (2007), "Achieving shared values: learning from Disney". *In Proceedings of the 10th QMOD Conference,* Helsingborg, Sweden, 18-20 June.
Evans, J. R. & Lindsay, W. M. (1996), *The Management and Control of Quality,* 3. ed, Minneapolis/St. Paul, West Pub. Co.
Featherstone, M. (1990), "Perspectives on consumer culture", *Sociology,* Vol. 24**,** No. 1, pp. 5-22.
Featherstone, M. (1991), *Consumer Culture and Postmodernism*, London, Sage.
Feigenbaum, A. V. (1951), *Quality Control: Principles,Practice and Administration; An Industrial Management Tool for Improving Product Quality and Design for Reducing Operating Costs and Losses*, New York,, McGraw-Hill.
Feigenbaum, A. V. (1991), *Total Quality Control,* 3. ed, New York, McGraw-Hill.
Fennel, G. (1978), "Consumer's perceptions of the product-use situation", *Journal of Marketing,* Vol. 42**,** No. 2, pp. 38-47.
Fishbein, M. & Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Reading, Mass., Addison-Wesley.
Flood, R. L. & Carson, E. R. (1993), *Dealing with Complexity: An Introduction to the Theory and Application of Systems Science,* 2. ed, New York, Plenum.

Foley, K. (2004), *Five Essays on Quality Management*, Sydney, Consensus Books.
Foster, J. (2000), "Competitive selection, self-organisation and Joseph A. Schumpeter", *Journal of Evolutionary Economics,* Vol. 10**,** No. 3, pp. 311-328.
Foxall, G. R., Brown, S. & Goldsmith, R. E. (1998), *Consumer Psychology for Marketing,* 2. ed, London, International Thomson Business.
Fredrickson, B. (1998), "What good are positive emotions?", *Review of general psychology,* Vol. 2**,** No. 3, pp. 300-319.
Fredrickson, B. (2001), "The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions", *American psychologist,* Vol. 56**,** No. 3, pp. 218-226.
Fredrickson, B. (2003), *Positive emotions and upward spirals in organizations*. IN Cameron, K., Dutton, J. & Quinn, R. (Eds.) *Positive organizational scholarship.* Berrett-Koehler Publishers.
Fredrickson, B. L. & Branigan, C. (2005), "Positive emotions broaden the scope of attention and thought-action repertoires", *Cognition & Emotion,* Vol. 19**,** No. 3, pp. 313-332.
Fredrickson, B. L. & Joiner, T. (2002), "Positive Emotions Trigger Upward Spirals Toward Emotional Well-Being", *Psychological Science (Wiley-Blackwell),* Vol. 13**,** No. 2, pp. 172-175.
Fredriksson, M. (2004), *From Customer Satisfaction to Citizen Interaction: A Cooperation Model for Community Development Based on Total Quality Management*, Doctoral thesis, 2004:39, Luleå University of Technology, Luleå.
Fundin, A. (2005), *Dynamics of Quality Attributes over Life Cycles of Goods and Services*. Doctoral thesis, Chalmers University of Technology, Göteborg.
Garvin, D. A. (1984), "What does 'product quality' really mean?", *Sloan Management Review,* Vol. 26**,** No. 1, pp. 25-43.
Garvin, D. A. (1988), *Managing Quality: The Strategic and Competitive Edge*, New York, Free Press.
Goh, T. N. (2002), "A strategic assessment of Six Sigma", *Quality and Reliability Engineering International,* Vol. 18**,** No. 5, pp. 403-410.
Goldstein, M. D. & Strube, M. J. (1994), "Independence revisited - The relation between positive and negative affect in a naturalistic setting", *Personality and Social Psychology Bulletin,* Vol. 20**,** No. 1, pp. 57-64.
Grant, R. M. (1991), "The resource-based theory of competitive advantage - implications for strategy formulation", *California Management Review,* Vol. 33**,** No. 3, pp. 114-135.
Grönroos, C. (2000), *Service Management and Marketing: A Customer Relationship Management Approach,* 2. ed, Chichester, Wiley.
Gummesson, E. (2001), "Are current research approaches in marketing leading us astray?", *Marketing Theory,* Vol. 1**,** No. 1, pp. 27-48.
Hansson, J. (2003), *Total Quality Management, Aspects of Implementation and Performance: Investigations with a Focus on Small Organisations*, Doctoral thesis, Luleå University of Technology, Luleå.
Hansson, J. & Klefsjö, B. (2003), "A core value model for implementing total quality management in small organisations", *TQM Magazine,* Vol. 15**,** No. 2, pp. 71-81.
Havlena, W. J., Holbrook, M. B. & Lehmann, D. R. (1989), "Assessing the validity of emotional typologies", *Psychology & Marketing,* Vol. 6**,** No. 2, pp. 97-112.
Hellsten, U. (1997), *The Springboard: A TQM-Based Tool for Self-Assessment*, Licentiate Thesis, 1997:47, Luleå University of Technology, Luleå.

Hellsten, U. & Klefsjo, B. (2000), "TQM as a management system consisting of values, techniques and tools", *TQM Magazine,* Vol. 12**,** No. 4, pp. 238-244.
Herzberg, F. (1966), *Work and the Nature of Man,* 2. pr. ed, Cleveland and New York, The Word Publishing Company.
Herzberg, F. (1987), "One more time: how do you motivate employees?", *Harvard Business Review,* Vol. 65**,** No. 5, pp. 109-120.
Herzberg, F., Mausner, B. & Snyderman, B. B. (1959), *The Motivation to Work,* 2. ed, New York, Wiley.
Holbrook, M. B. & O'Shaughnessy, J. (1984), "The role of emotion in advertising", *Psychology & Marketing,* Vol. 1**,** No. 2, pp. 45-64.
Holme, I. M., Solvang, B. K. & Nilsson, B. (1991), *Forskningsmetodik: Om kvalitativa och kvantitativa metoder (Research Methodology: Qualitative and Quantitative Methods)*, Lund, Studentlitteratur.
Högström, C., Rosner, M. & Gustafsson, A. (2010), "How to create attractive and unique customer experiences: An application of Kano's theory of attractive quality to recreational tourism", *Marketing Intelligence and Planning,* Vol. 28**,** No. 4, pp. 385-402.
Inglehart, R. & Abramson, P. R. (1994), "Economic-security and value change", *American Political Science Review,* Vol. 88**,** No. 2, pp. 336-354.
Isaksen, S. G. & Parnes, S. J. (1992), "Curriculum planning for creative thinking and problem solving", *Journal of Creative Behavior,* Vol. 19**,** No. 1.
Ishikawa, K. (1990), *Introduction to Quality Control*, London, Chapman & Hall.
Johnson, A. (2002), "Six sigma in R&D", *Research-Technology Management,* Vol. 45**,** No. 2, pp. 12-16.
Johnston, R. (1995), "The determinants of service quality: satisfiers and dissatisfiers", *International Journal of Service Industry Management,* Vol. 6**,** No. 5, pp. 53-71.
Johnston, R. & Silvestro, R. (1990), "The determinants of service quality: a customer-based approach". *In Proceedings of the Decision Science Institute Conference,* San Diego, CA., November.
Joiner, B. L. (1996), "Quality, innovation, and spontaneous democracy", *Quality Progress,* Vol. 29**,** No. 3, pp. 51-53.
Juran, J. M. (1992), *Juran on Quality by Design: The New Steps for Planning Quality into Goods and Services*, New York, Free Press.
Juran, J. M. & Gryna, F. M. (1988), *Juran's Quality Control Handbook,* 4. ed, New York, McGraw-Hill.
Kahn, K. B. (2001), *Product Planning Essentials*, London, Sage.
Kanji, G. K. & Asher, M. (1993), *Total Quality Management Process: A Systematic Approach*, Abingdon, Carfax.
Kano, N. (1987), "TQC as Total Quality Creation". *In Proceedings of the ICQ,* Tokyo.
Kano, N. (2001), "Life cycle and creation of attractive quality". *In Proceedings of the 4th QMOD Conference,* Linköping, Sweden.
Kano, N., Seraku, N., Takahashi, F. & Tsuji, S. (1984), "Attractive quality and must-be quality", *Hinshitsu (Quality, The Journal of the Japanese Society for Quality Control),* Vol. 14**,** No. 2, pp. 39-48.
Kano, N., Seraku, N., Takahashi, F. & Tsuji, S. (1996), *Attractive quality and must-be quality*. IN Hromi, J. D. (Ed.) *The Best of Quality.* ASQC Quality Press, Milwaukee, Wisconsin.
Kano, N. & Takahashi, F. (1979), "On M-H property of quality". *Presented on the Nippon QC Gakkai: 9th Annual Presentation Meeting*.

Kaplan, A. (1964), *The Conduct of Inquiry: Methodology for Behavioral Science*, New York, Crowell.
Kelley, T. & Littman, J. (2001), *The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm*, New York, Currency/Doubleday.
Kennerfalk, L. (1995), *Changes in Organizational Structure Related to the Implementation of a Total Quality Management Strategy*, Licentiate Thesis, 1995:39, Luleå University of Technology, Luleå.
Klefsjö, B., Bergquist, B. & Garvare, R. (2008), "Quality management and business excellence, customers and stakeholders", *The TQM Journal,* Vol. 20**,** No. 2, pp. 120-129.
Klefsjö, B., Wiklund, H. & Edgeman, R. (2001), "Six sigma seen as a methodology for total quality management", *Measuring Business Excellence,* Vol. 5**,** No. 1, pp. 31-35.
Kondo, Y. (2000), "Attractive quality: Its importance and the points of remark", *Total Quality Management,* Vol. 11**,** No. 4, pp. 647-651.
Kotler, P. (2003), *Marketing Management,* 11. ed, Upper Saddle River, NJ, Prentice Hall.
Kroslid, D. (1999), *In Search of Quality Management: Rethinking and Reinterpreting*, Doctoral Thesis, Linköping University of Technology, Linköping.
Kuhn, T. S. (1996), *The Structure of Scientific Revolutions,* 3. ed, Chicago, Ill., University of Chicago Press.
Kuo, Y. F. (2004), "Integrating Kano's model into web-community service quality", *Total Quality Management and Business Excellence,* Vol. 15**,** No. 7, pp. 925-939.
Lagrosen, Y. (2006), *Values and Practices of Quality Management: Health Implications and Organisational Differences*, Doctoral Thesis, Chalmers University of Technology, Göteborg.
Larson, R. W. (1987), "On the independence of positive and negative affect within hour-to-hour experience", *Motivation and Emotion,* Vol. 11**,** No. 2, pp. 145-156.
Lau, R. & Anderson, C. (1998), "A three-dimensional perspective of total quality management", *International Journal of Quality and Reliability Management,* Vol. 15**,** No. 1, pp. 85-98.
Lazarus, R. S. & Lazarus, B. N. (1994), *Passion and Reason: Making Sense of our Emotions*, New York, Oxford University Press.
Leszinski, R. & Marn, M. V. (1997), "Setting value, not price", *McKinsey Quarterly,* Vol.**,** No. 1, pp. 98-115.
Levitt, T. (1960), "Marketing myopia", *Harvard Business Review,* Vol. July-August**,** pp. 45-56.
Levitt, T. (1983), *The Marketing Imagination*, New York, The Free Press.
Lilja, J. & Eriksson, M. (2010), "From problem to Attraction Detection Study (ADS): towards a new methodology for quality practice". *In Electronic Proceedings at the 13th QMOD Conference,* Cottbus, Germany, 30 August - 1 September.
Lilja, J., Eriksson, M. & Ingelsson, P. (2010), "Commercial experiences from a customer perspective", *The TQM Journal,* Vol. 22**,** No. 3, pp. 285-292.
Lilja, J. & Wiklund, H. (2005a), "Getting emotional about quality: Questioning and elaborating the satisfaction concept", *The Asian Journal on Quality,* Vol. 6**,** No. 3, pp. 38-55.
Lilja, J. & Wiklund, H. (2005b), "Quality Practice and External Customer Value: Critical Reflections of the Ideal Linkage". *In Proceedings of the 8th QMOD*

Conference, Palermo, Italy.
Lilja, J. & Wiklund, H. (2006), "Obstacles to the creation of attractive quality", *TQM Magazine,* Vol. 18**,** No. 1, pp. 55-66.
Lilja, J. & Wiklund, H. (2007), "A two-dimensional perspective on attractive quality", *Total Quality Management and Business Excellence,* Vol. 18**,** No. 6, pp. 667-679.
Lilja, J. & Wiklund, H. (2010), "The need for re-understanding TQM: introducing the TQM Tree Model", *Submitted for publication.*
Liu, S. S. & Stout, P. A. (1987), "Effects of message modality and appeal on advertising acceptance", *Psychology & Marketing,* Vol. 4**,** No. 3, pp. 167-187.
Locke, E. A. (1991), "The motivation sequence, the motivation hub, and the motivation core", *Organizational Behavior and Human Decision Processes,* Vol. 50**,** No. 2, pp. 288-299.
Lynn Jenks, C. (2004), "The well-being of social systems", *Systems Research and Behavioral Science,* Vol. 21**,** No. 3, pp. 209-217.
Löfgren, M. (2006), *The Leader of the Pack: A Service Perspective on Packaging and Customer Satisfaction*, Doctoral Thesis, Karlstad University, Karlstad.
Magnusson, K., Kroslid, D., Häyhänen, P., Mills, D. & Bergman, B. (2003), *Six Sigma: The Pragmatic Approach,* 2., rev. ed, Lund, Studentlitteratur.
Magnusson, M. G. (2000), *Innovation and Efficiency: A knowledge-Based Approach to Organizing Industrial Firms*, Gothenburg, Chalmers.
Magnusson, P. R. (2003), *Customer-oriented Product Development: Experiments Involving Users in Service Innovation*, Doctoral Thesis, Stockholm School of Economics, Stockholm.
Mano, H. (1991), "The structure and intensity of emotional experiences - Method and context convergence", *Multivariate Behavioral Research,* Vol. 26**,** No. 3, pp. 389-411.
March, J. B. (1991), "Exploitation and exploitation in organizational learning", *Organization Science: A Journal of the Institute of management science,* Vol. 2**,** No. 1, pp. 71-87.
Marshall, C. & Rossman, G. B. (1999), *Designing Qualitative Research,* 3. ed, Thousand Oaks, Calif. ; London, SAGE.
Maslow, A. H. (1943), "A theory of human motivation", *Psychological Review,* Vol. 50**,** No. July, pp. 370-396.
Maslow, A. H. (1954), *Motivation and Personality*, New York, Harper & Row.
Maslow, A. H. (1999), *Toward a Psychology of Being,* 3. ed, New York, J. Wiley & Sons.
Matzler, K. & Hinterhuber, H. H. (1998), "How to make product development projects more successful by integrating Kano's model of customer satisfaction into quality function deployment", *Technovation,* Vol. 18**,** No. 1, pp. 25-38.
Matzler, K., Hinterhuber, H. H., Sauerwein, B. & Sauerwein, E. (1996), "How to delight your customers", *Journal of Product & Brand Management,* Vol. 5**,** No. 2, pp. 6-18.
Maxwell, T. & Costanza, R. (1993), "An approach to modelling the dynamics of evolutionary self-organization", *Ecological Modelling,* Vol. 69**,** No. 1, pp. 149-161.
McCarthy, B. (1987), *The 4MAT System: Teaching to Learning Styles with Right/left Mode Techniques,* 2 ed, Excel Incorporated.
Merton, R. K. (1967), *On Theoretical Sociology: Five Essays, Old and New. Including Part 1 of Social theory and Social Structure*, New York, Free Press.

Meyer, A. D., Goes, J. B. & Brooks, G. R. (1993), *Organizations reacting to hyperturbulence*. IN Huber, G. P. & Glick, W. H. (Eds.) *Organizational Change and Redesign.* Oxford University Press.
Meyer, G. J. & Shack, J. R. (1989), "Structural convergence of mood and personality - evidence for old and new directions", *Journal of Personality and Social Psychology,* Vol. 57**,** No. 4, pp. 691-706.
Monroe, K. B. (2003), *Pricing: Making Profitable Decisions,* 3. ed, New York, McGraw-Hill.
Montgomery, D. C. (2001), *Introduction to Statistical Quality Control,* 4. ed, Chichester, Wiley.
Mossberg, L. (2003), *Att skapa upplevelser: från OK till WOW!*, Lund, Studentlitteratur.
Månson, P. (1995), *Moderna samhällsteorier: traditioner, riktningar, teoretiker (Modern Theories of Society),* 4. ed, Stockholm, Rabén Prisma.
Narver, J. C., Slater, S. F. & MacLachlan, D. L. (2004), "Responsive and proactive market orientation and new-product success", *Journal of Product Innovation Management,* Vol. 21**,** No. 5, pp. 334-347.
Nilsson, L. (2002), Quality Practice: An Empirical Investigation of Product Development and the Goods-to-Services Continuum. *Linköping studies in science and technology. Dissertations, 738.* Linköping, Univ.
Nilsson-Witell, L. & Fundin, A. (2005), "Dynamics of service attributes: A test of Kano's theory of attractive quality", *International Journal of Service Industry Management,* Vol. 16**,** No. 2, pp. 152-168.
Normann, R. (1977), *Management for Growth*, Chichester, Wiley.
Oakland, J. S. (1989), *Total Quality Management*, Oxford, Butterworth-Heinemann.
Oakland, J. S. (1993), *Total Quality Management: The Route to Improving Performance,* 2. ed, Oxford, Butterworth-Heinemann.
Oliver, R. L. (1996), *Satisfaction: A Behavioral Perspective on the Consumer*, Boston, McGraw Hill.
Oliver, R. L., Rust, R. T. & Varki, S. (1997), "Customer delight: foundations, findings, and managerial insight", *Journal of Retailing,* Vol. 73**,** No. 3, pp. 311-336.
Oliver, R. L. & Westbrook, R. A. (1993), "Profiles of consumer emotions and satisfaction in ownership and usage", *Journal of consumer Satisfaction, Dissatisfaction, and Complaining behavior,* Vol. 6**,** No., pp. 12-27.
Ortony, A., Collins, A. & Clore, G. L. (1988), *The Cognitive Structure of Emotions*, Cambridge, Cambridge University Press.
Parasuraman, A. (1997), "Reflections on gaining competitive advantage through customer value", *Journal of the Academy of Marketing Science,* Vol. 25**,** No. 2, pp. 154-161.
Pardee, W. J. (1996), *To Satisfy & Delight your Customer: How to Manage for Customer Value*, New York, N.Y., Dorset House Pub.
Park Dahlgaard, S. M. (2001), *The Human Dimension in TQM: Learning, Training and Motivation*. Doctoral Thesis, 55, Linköping University of Technology, Linköping.
Park, R. J. (1999), *Value Engineering: A Plan for Invention*, Boca Raton, Fla. ; London, St. Lucie Press.
Parker, D., Manstead, A. S. R. & Stradling, S. G. (1995), "Extending the theory of planned behavior - the role of personal norm", *British Journal of Social Psychology,* Vol. 34**,** No., pp. 127-137.
Paton, S. M. (1999), "A century of quality: an interview with quality legend Joseph M.

Juran", *Quality Digest,* No. February.
Paton, S. M. (2002), "Juran: a lifetime of quality", *Quality Digest,* No. August.
Paulsen, G. (1997), *Pilgrimage on a Steel Ride*, New York, Harcourt Brace & Company.
Pawson, R. & Tilley, N. (1997), *Realistic Evaluation*, London, Sage Publications.
Pettersson, R. & Zillinger, M. (2009), "Experience tracking on outdoor events". *Presented at the 18th Nordic Symposium,* Esbjerg, Denmark, 22-25 October.
Pinder, C. C. (1998), *Work Motivation in Organizational Behavior*, Upper Saddle River, N.J., Prentice Hall.
Pine, B. J. & Gilmore, J. H. (1998), "Welcome to the experience economy", *Harvard Business Review,* Vol. 76**,** No. 4, pp. 97-105.
Pine, B. J. & Gilmour, J. H. (1999), *The Experience Economy: Work is Theatre & Every Business a Stage*, Boston, Mass., Harvard Business School Press.
Plutchik, R. (1980), *Emotion: A Psychorevolutionary Synthesis*, New York, Harper & Row.
Porter, M. E. (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*, New York, Free Press.
Prahalad, C. K. & Hamel, G. (1990), "The core competence of the corporation", *Harvard Business Review,* Vol. 68**,** No. 3, pp. 79-91.
Pyzdek, T. (1999), "Quality profession must learn to heed its own advice", *Quality Progress,* Vol. 32**,** No. 6, pp. 60-64.
Pyzdek, T. (1999), "A road map for quality beyond control", *Quality Progress,* Vol. 32**,** No. 12, pp. 33-38.
Pyzdek, T. (1999), "Why six sigma is not enough", *Quality Digest,* No. November.
Ramis-Pujol, J. (2003), "Sustaining process innovation in a quality environment". *In Proceedings of the 6th QMOD Conference,* Paris, France, October.
Reeves, C. A. & Bednar, D. A. (1994), "Defining quality - alternatives and implications", *Academy of Management Review,* Vol. 19**,** No. 3, pp. 419-445.
Rokeach, M. & Ballrokeach, S. J. (1989), "Stability and change in american value priorities, 1968-1981", *American Psychologist,* Vol. 44**,** No. 5, pp. 775-784.
Roseman, I. J. & Evdokas, A. (2004), "Appraisals cause experienced emotions: Experimental evidence", *Cognition & Emotion,* Vol. 18**,** No. 1, pp. 1-28.
Rossiter, J. R. & Percy, L. (1987), *Advertising and Promotion Management*, New York, McGraw-Hill.
Rossiter, J. R. & Percy, L. (1996), *Advertising Communications and Promotion Management,* 2. ed, London, McGraw-Hill.
Rossiter, J. R., Percy, L. & Donovan, R. J. (1984), "The advertising plan and advertising communication models", *Australian Marketing Researcher,* Vol. 8**,** No. 2, pp. 7-44.
Russell, J. A. (1980), "A circumplex model of affect", *Journal of Personality and Social Psychology,* Vol. 39**,** No. 12, pp. 1161-1178.
Rust, R. T. & Oliver, R. L. (2000), "Should we delight the customer?", *Journal of the Academy of Marketing Science,* Vol. 28**,** No. 1, pp. 86-94.
Rust, R. T., Zahorik, A. J. & Keiningham, T. L. (1994), *Return on Quality: Measuring the Financial Impact of Your Company's Quest for Quality*, Chicago, Probus.
Sage, A. P. & Armstrong, J. E. (2000), *Introduction to Systems Engineering*, New York ; Chichester, John Wiley & Sons.
Schneider, B. & Alderfer, C. P. (1973), "Three studies of measures of need satisfaction in organizations", *Administrative Science Quarterly,* Vol. 18**,** No. December, pp. 489-505.

Schouten, J. W. & McAlexander, J. H. (1995), "Subcultures of consumption: an ethnography of the new bikers", *Journal of Consumer Research,* Vol. 22**,** No. 1, pp. 43-61.
Schumpeter, J. A. (1934), *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*, Cambridge, Mass.,.
Sharp, B. & Dawes, J. (1996), *Is differentation optional? - A critique of Poerter's competitive strategy typology*. IN Earl, P. E. (Ed.) *Management, Marketing, and the Competitive Process.* Edward Elgar, Cheltenham.
Shewhart, W. A. (1931), *Economic Control of Quality of Manufactured Product*, London, D. Van Nostrand Company Inc.
Shiba, S., Graham, A. & Walden, D. (1993), *A new American TQM: Four Practical Revolutions in Management*, Portland, Or., Productivity Press.
Sila, I. & Ebrahimpour, M. (2002), "An investigation of the Total Quality Management survey based on research between 1998 and 2000", *International Journal of Quality and Reliability Management,* Vol. 19**,** No. 7, pp. 902-970.
Silverman, L. L. & Propst, A. L. (1999), "Quality today: recognizing the critical shift", *Quality Progress,* Vol. 32**,** No. 2, pp. 53-60.
Spencer, B. A. (1994), "Models of organization and Total Quality Management: a comparison and critical-evaluation", *Academy of Management Review,* Vol. 19**,** No. 3, pp. 446-471.
Steenkamp, J.-B. E. M. (1990), "Conceptual model of the quality perception process", *Journal of Business Research,* Vol. 21**,** No. 4, pp. 309-333.
Stickland, A. G. & Coulson, L. T. (1996), *Learning Creative Process: A Basic Life Skill*. IN Costa, A. L. & Liebman, R. M. (Eds.) *Envisioning Process as Content: Towards a Renaissance Curriculum.* Sage Publications, New York.
Storm, C. & Storm, T. (1987), "A taxonomic study of the vocabulary of emotions", *Journal of Personality and Social Psychology,* Vol. 53**,** No. 4, pp. 805-816.
Sutton, R. I. & Staw, B. M. (1995), "What theory is not", *Administrative Science Quarterly,* Vol. 40**,** No. 3, pp. 371-384.
Söderlund, M. (2001), *Den lojala kunden (The Loyal Customer)*, Malmö, Liber ekonomi.
Söderlund, M. (2002), *Emotionsladdad marknadsföring,* 1. ed, Malmö, Liber ekonomi.
Tan, K. C. & Shen, X. X. (2000), "Integrating Kano's model in the planning matrix of quality function deployment", *Total Quality Management,* Vol. 11**,** No. 8, pp. 1141-1151.
Tenner, A. R. & DeToro, I. J. (1992), *Total Quality Management: Three Steps to Continuous Improvements*, Reading, Mass., Addison-Wesley.
Thurén, T. (1991), *Vetenskapsteori för nybörjare (Epistemology for Beginners)*, Stockholm, Runa.
Ting, S. C. & Chen, C. N. (2002), "The asymmetrical and non-linear effects of store quality attributes on customer satisfaction", *Total Quality Management,* Vol. 13**,** No. 4, pp. 547-569.
Trout, J. & Rivkin, S. (2000), *Differentiate or Die: Survival in our Era of Killer Competition*, New York, Wiley.
Tushman, M. L. & O´Reilly III, C. A. (1996), "Ambidextrous organizations: Managing evolutionary and revolutionary change", *California Management Review,* Vol. 38**,** No. 4.
Törnebohm, H. (1974), *A Paradigm Shift in Physics: A Case Study*, Göteborg,.
Ulrich, K. T. & Eppinger, S. D. (1995), *Product Design and Development*, New York, McGraw-Hill.

Vandeven, A. H. (1986), "Central problems in the management of innovation", *Management Science,* Vol. 32**,** No. 5, pp. 590-607.
Warr, P., Barter, J. & Brownbride, G. (1983), "On the independence of postive and negative affect", *Journal of Personality and Social Psychology,* Vol. 44**,** No. 3, pp. 644-651.
Watson, D. & Tellegen, A. (1985), "Toward a consensual structure of mood", *Psychological Bulletin,* Vol. 98**,** No. September, pp. 219-235.
Watson, G. H. (2003), *Customer focus and competitiveness*. IN Stephens, K. S. (Ed.) *Six Sigma and Related Studies in the Quality Disciplines.* ASQ Quality Press, Milwaukee.
Whitney, D. K. & Trosten-Bloom, A. (2002), *The Power of Appreciative Inquiry: A Practical Guide to Positive Change*, San Francisco, CA, Berrett-Koehler.
Witell, L. & Löfgren, M. (2007), "Classification of quality attributes", *Managing Service Quality,* Vol. 17**,** No. 1, pp. 54-73.
Woodruff, R. B. (1997), "Customer value: the next source for competitive advantage", *Journal of the Academy of Marketing Science,* Vol. 25**,** No. 2, pp. 139-153.
Yin, R. K. (2003), *Case Study Research: Design and Methods,* 3. ed, Thousand Oaks, Calif., Sage Publications.
Yu, B. & Yu, J. (2009), "Integrating the Kano model into designing service quality of online-shopping web to enhance customer satisfaction". *In Proceedings of the International Conference on Management and Service Science, MASS 2009*.
Zeithaml, V. A. (1988), "Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence", *Journal of Marketing,* Vol. 52**,** No. 3, pp. 2-21.
Zevon, M. A. & Tellegen, A. (1982), "The structure of mood change: an idiographic/nomothetic analysis", *Journal of Personality and Social Psychology,* Vol.**,** No. 43, pp. 111-122.
Zikmund, W. G. (2000), *Exploring Marketing Research,* 7th ed, Fort Worth, Dryden Press.
Zillinger, M. (2010), "Experience tracking: evaluating methods for studying experiences in time and space". *Presented at the ENTER E-Tourism Conference,* Lugano, Switzerland, 10-12 February.

PAPER A

Obstacles to the Creation of Attractive Quality

Lilja, J. and Wiklund, H. (2006)
The TQM Magazine, Vol. 18, No. 1, pp. 55-66.

The paper received the Emerald LiteratiNetwork Outstanding Paper Award 2007

PAPER B

A Two-Dimensional Perspective on Attractive Quality

Lilja, J. and Wiklund, H. (2007)
Total Quality Management and Business Excellence, Vol. 18, No. 6, pp. 667-679.

PAPER C

Getting Emotional about Quality: Questioning and Elaborating the Satisfaction Concept

Lilja, J. and Wiklund, H. (2005)
Asian Journal on Quality, Vol. 6, No. 3, pp. 38-55.

Invited for publication. An earlier version of this paper was presented at the 8th QMOD Conference, 29 June-1 July 2005, Palermo, Italy, in Proceedings pp. 905-916.

PAPER D

Quality Practice and External Customer Value: Critical Reflections on the Ideal Linkage

Lilja, J. and Wiklund, H. (2005)

Presented at the 8th QMOD Conference, 29 June-1 July 2005, Palermo, Italy, in Proceedings pp. 281-292.

PAPER E

Commercial Experiences from a Customer Perspective: Elaborated, defined and distinguished

Lilja, J., Eriksson, M. and Ingelsson, P. (2010)
The TQM Journal, Vol. 22, No. 3, pp. 285-292.

Invited for publication. An earlier version of this paper was presented at the 10th QMOD Conference, 18-20 June 2007, Helsingborg, Sweden, in Electronic Proceedings, Issue 26, No. 57.

PAPER F

From Problem to Attraction Detection Study (ADS): Towards a new methodology for quality practice

Lilja, J. and Eriksson, M. (2010)

Presented at the 13th QMOD Conference, 30 August - 01 September 2010, Cottbus, Germany, Published in Electronic Proceedings.

PAPER G

The Need for Re-understanding TQM: Introducing the TQM Tree Model

Lilja, J. and Wiklund, H. (2010)

Submitted for publication