



3 central contradictions

in the concept of quality

Authors

MMag. Dr. Melanie Wiener,
MBA



qualityaustria network partner,
product expert NQR, postdoctoral re-
searcher Johannes Kepler University

DI Michael Lucyshyn



qualityaustria network partner,
product expert Six Sigma and statis-
tics

Dr. phil. Markus Reimer



qualityaustria network partner,
auditor and trainer

Mag. Dr. Anni Koubek



Executive Vice President of Innova-
tion, Business Development Certifica-
tion Quality, Quality Austria

Foreword

Contradictory developments and a shift in values

It is not a mere feeling, but rather an actual fact that the demands placed on concept underlying the term “quality” has become more complicated, if not indeed more complex. It is no longer only the customer being the center of focus. The new demands go much further than this. The concept “quality” virtually becomes all-encompassing.

As a result, a new understanding of quality, oriented on the shifting societal values, is more than necessary. Societal values are subject to constant change. In earlier times, this change seemed to take place slowly, while today it can be observed at a more rapid rate. From time to time, this also gives rise to the sensation of taking one step forward followed by two steps back – or that the step forward is just one step closer to the next Groundhog Day.

Therefore, it comes as no surprise, if as part of this general shift in values, the concept of quality is also subject to change.

One consequence of these changes was highlighted in the “Quality 2030” study, initiated by Quality Austria and the Institute for Integrated Quality Design of the Johannes Kepler University Linz: the increase in – at least apparent – contradictions in the concept of quality and quality awareness.

In this white paper, for one, we aim to examine in greater detail the development of values that take on importance in the context of quality and how this development leads to contradictions – and what this can mean for quality management.

For example, many of the study participants mentioned sustainability as a value that is becoming increasingly relevant and is also becoming a main argument in

purchasing decisions. At the same time, however, the importance of the “value” of convenience has also increased, meaning that this can lead to situations in which convenience stands in direct opposition to aspirations of ecological and social values. “Stress and time are the killers of morality”. Five minutes before the supermarket closes, one is much more likely to buy a ready meal than regional vegetables, and we prefer to use time-saving disposable wipes when cleaning rather than washable cloths.

In this white paper, we go into depth on three of these contradictory developments and the shift in values in the context of quality, and illustrate which values will gain in importance and how this can lead to contradictions in the concept of quality.



© pixabay.com/geralt

From the little “q” to the big “Q”

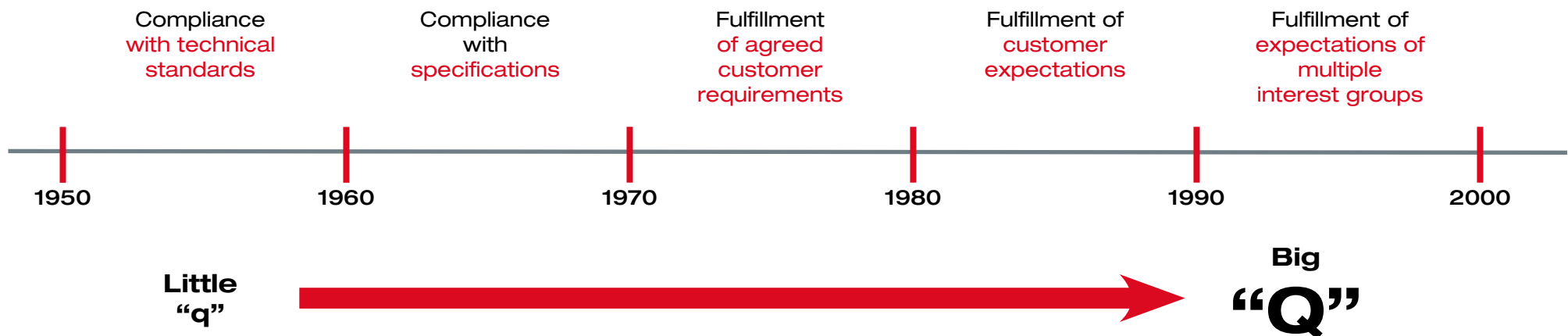
The progressive individualization that is well established in the B2C area (Ford’s famous quote *“Any customer can have a car painted any color that he wants, so long as it is black”* evokes little more than a sympathetic smile) has long taken hold in the B2B area too – and this is not infrequently driven by the personal experiences of decision-makers in the private B2C area:
The “interest group” has become one single interested party, one that makes individual demands that are often diametrically opposed to the claims of other interested parties – and does not shy away from following a dictum ascribed

to Keynes, changing its demands at short notice: *“When the facts change, I change my mind: What do you do, sir?”*

Where the focus of quality management originally was directed at compliance with specifications, today, the planning horizon of quality management is forced to extend well beyond the scope of a technical drawing:

Fulfilling customer expectations will thus inevitably have to lead to dealing with customers as specific

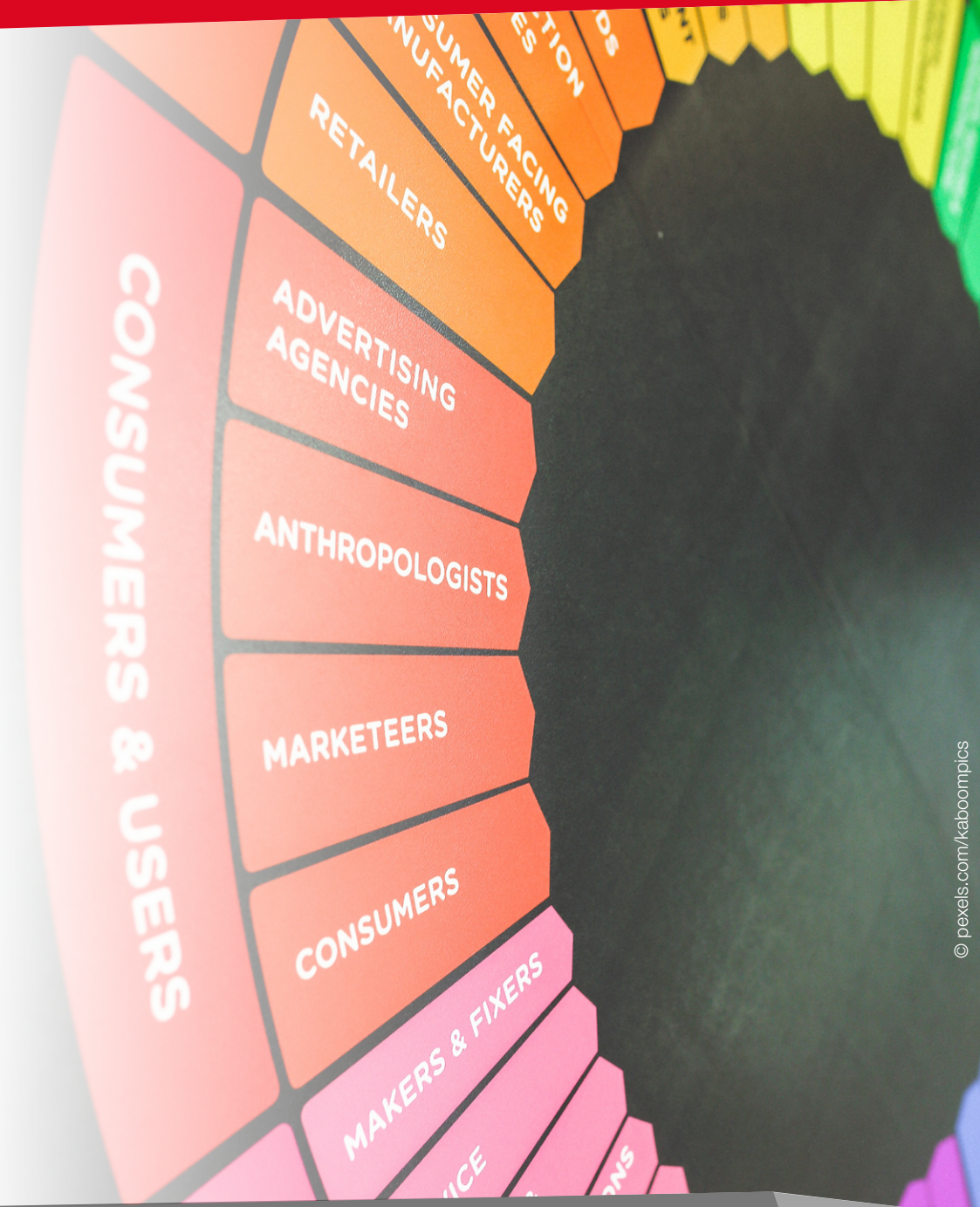
players and decision-makers. These customer and interest groups can be considerably more complex – and therefore also more easily contradictory – in their diversity and their behavior than the patient paper upon which the technical and performance specifications were printed – and continue to be printed on to this day.



This development did not come without a downside. More and more voices are suggesting that along the path towards achieving greater breadth, the concept of quality has lost in depth. Classic quality management according to ISO 9001 covers such a broad scope, that in areas with high product-related requirements, the focus on this topic is not sufficient. A great variety of specialized industry standards has been developed. In those sectors quality assurance begins in part to detach itself from the domain of quality management as a specialization in and of itself.

What does the future look like regarding these aspects? Will the Q become even bigger, even broader? The answer to this is multi-layered, as we will see throughout the following pages. And nevertheless, there must be an aspiration to unify once more these many specifications that have arisen under the term “quality”, based on the wide variety of requirements and the corresponding potential “isolations”; to bring these back together to create a holistic approach, an overarching understanding.

The concept of quality and its underlying understanding can no longer be considered from only one viewpoint. This is exactly where the challenge of the future lies. We will be dealing with massive intersections that will be not just extensive, but also profound. Without a comprehensive understanding of quality, this will not be possible. As a result, organizations will also have to engage intensively with their quality policy, which in turn represents the basis for a shared collective understanding of quality.



1st central contradiction: Speed vs. accuracy

Innovation and speed as a new imperative for quality

As the first value that can lead to quality contradictions, we would like to contrast the value of “speed” with that of “quality performance”.

The consumer demand for „Innovation“, which is primarily generated by marketing, makes the concept of anticipated completeness cumbersome. In many cases, this concept is not even very accurate and often accordingly also expensive – in other words – fragile.

Coupled with the objective of market dominance, the demand for novelty thus often leads to a new strategy. This focuses on innovative power and speed to be able to implement as many as possible of the following potentials of a rapid market launch:

- 1.) **Network effects** – “All my friends are on Facebook”
- 2.) **Economies of scale** – “I’m a size too big for you”
- 3.) **Lock-in effects** – “Switch from iOS to Android? And what should I do with all my apps?”

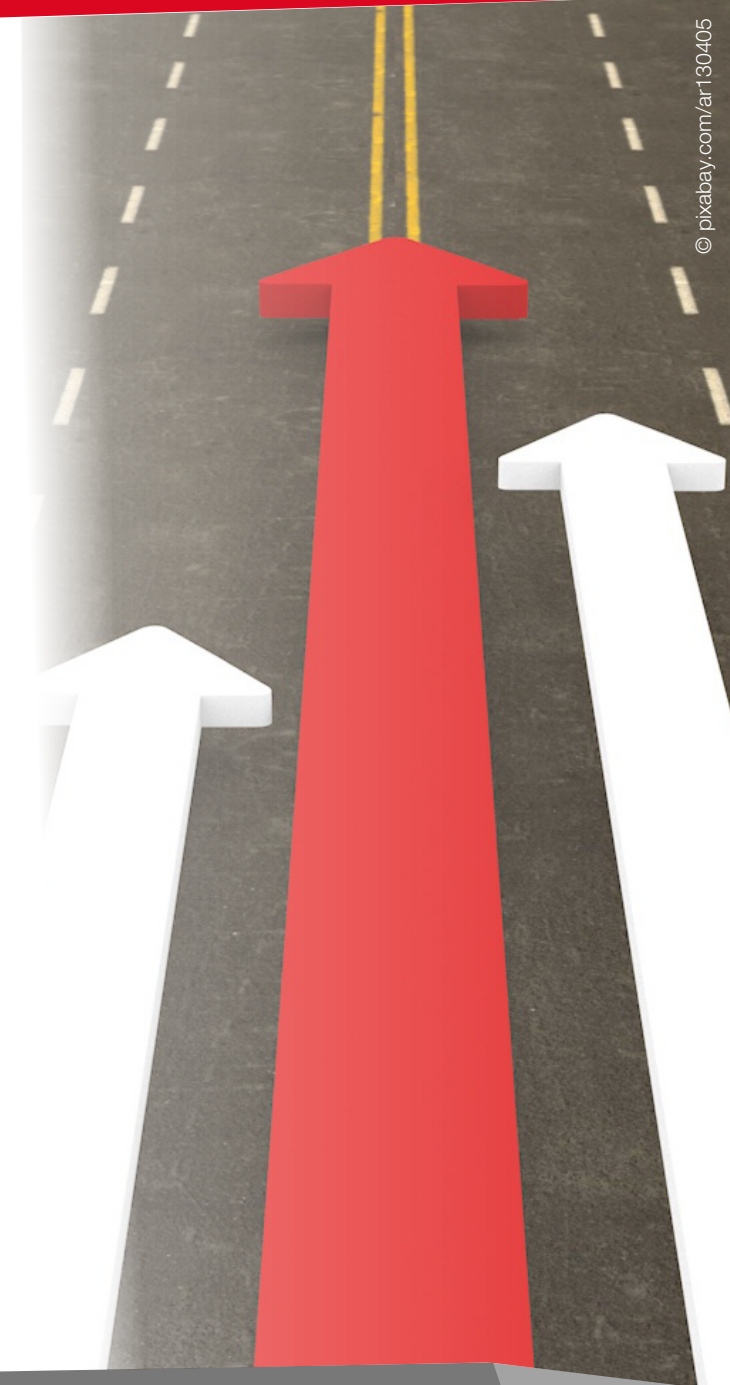
This development is facilitated especially by technological advancements. The higher software proportion of a product in particular is a driver for the speed of the market launch:

After all, any defects can later be remedied by means of an update, as the idea goes – even if this is sometimes little more than misguided wishful thinking.

However, the accepted contradiction between the quality dimension of “pace” and the specific product or service performance presents quality management with great challenges. And that’s not all. The increasing complexity of technical innovations and complex, global value chains pose additional challenges, and not only during times of lockdown – with enormous consequences if companies are unable to conquer these challenges successfully: One can only recall negative examples of incidences, such as e.g. with Tesla or Boeing 737.

Quality – in the sense of meeting the expectations and requirements – therefore needs to be considered in its different aspects. For a product that is critical to security, it is not justifiable to introduce an update after a crash. But with other products, for example the weather app, time-to-market is to be viewed differently when it comes to absolute accuracy. Answers are becoming more difficult – the central concept is surely “risk-based thinking” or, more precisely, a risk-benefit evaluation. In the latest revision of Standards, these approaches have become central requirements for good reason.

Source: BCG, Quality 4.0. Takes More Than Technology, 2019



Self-absorbed engineering savvy

Another strategy adopted by companies to meet the changing and diverse requirements can be exemplified by a software product such as “Word”. (Whether consciously or, as in the example of Word, whether this “happened” to them in an accumulated course over the years is a different matter):

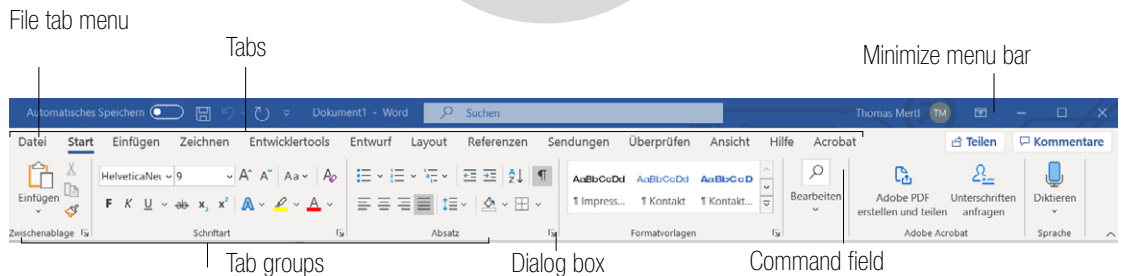
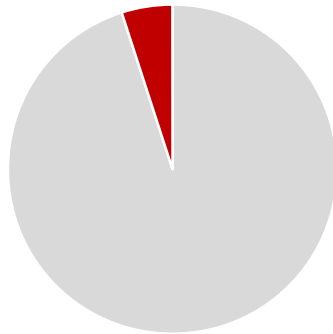
Allegedly, 95% of the available features are not used by the average user. But in order to also do justice to anticipated requirements, or even special requirements from what are currently small user segments, the product is decked out until it becomes utterly confusing and is delivered as a “complete” product.

The large number of features contained in the software results in a high „maintenance cost” to ensure overall performance.

Despite this, or perhaps precisely due to these extensive features, Word is the default for word processing and has thus far successfully warded off any attacks on its market position.

At the same time, however, a counter-trend can also be observed. Specialized, easy-to-handle apps are conquering our computers and other devices. What was once accommodated within one complex application is now split up into several individual apps. Better to execute one function well and simply, than be able to do it all and lose oversight.

5%



© pixabay.com/Tumis/Quality Austria

2nd central contradiction: Simplicity vs. complexity

A further central value for customers, according to our study, is “simplicity” – after all, the call for simplicity is directly related to the previously discussed value of “speed” and the interlinked needs for convenience and usability.

The reasons for this development are evident: Purchasing decisions are made and have to be made more and more rapidly. The attention span of online customers is correspondingly short. In addition, not only in B2B, decisions about increasingly complex products have to be made under time pressure, often coupled with less awareness and knowledge regarding quality requirements.

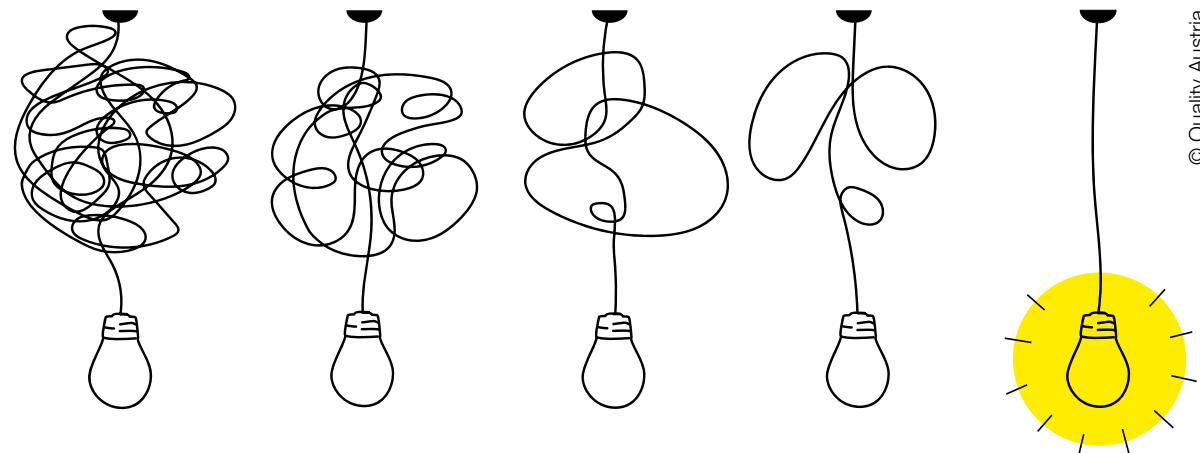
This is where convenience often trumps quality: when we are familiar with a business, we are more likely to go back there. When we are familiar with a platform, we do not want to change the provider. The transaction costs of learning new things are high. On the other hand – when a provider shows up and massively simplifies a process, the obstacles to converting are very low.

As a result, on the internet and in the increasing number of online transactions both in the B2B as well as the B2C area, the competition is becoming ever more concentrat-

ed and intense. “The competition is just a click away, regardless of the geographical location.”

Major retail groups have long since realized this, and have set the bar incredibly high for everybody else with their intuitive operation and one-click orders.

“The future, therefore, is simple, convenient and uncomplicated. If a company does not fulfill these customer expectations, it won’t last long in the market,” is the quintessential message of the study.



© Quality Austria

Millennials

Millennials have different demands. Can you fulfill these requirements?

Simplicity and convenience are, in particular for the so-called millennial generation, a basic requirement. They are the new deciding factors on the customer side. In the USA, an entire 46% of those influencing B2B decisions are under 35, and this figure is only slightly lower in Germany. Their information, communication and social behavior is significantly different from that of the previous generation. They prefer typing over phone conversions, inform themselves on the internet (“googling”) rather than in person with the sales representative – they are always accessible and expect answers immediately.

Due to their experiences with online shopping for consumer goods (Amazon, Zalando, etc.), they already have high expectations when it comes to the convenience of a purchase. This, in turn, changes their professional decision-making behavior. If they are looking to award a contract, the type of questions that arise are those such as “How easy is it to do business with the company?”.

Source: Roland Berger, Die Zukunft des B2B-Vertriebs [The Future of B2B Sales], 2015

Expectations in the digital age

Making purchasing easy

Simplicity:

- Fast, convenient interaction and co-operation
- Lean, automated, industrialized and scalable

24/7:

- Digital channels should make it possible for customers to shop when, where and however they want to
- Synchronization of all sales and communication channels

Anticipatory and individualized:

- Customer-specific interaction models
- Preconfigured, segment-specific promises of performance

Creating added value

Configurable

- Innovative product-service systems i.e. complete solution packages
- Modularization of offers

Cooperation and interactive processes

- Collaboration (open innovation, open strategy, ...) over solo efforts
- Joint development with the customer

Partnerships and customer contact beyond the factory gates

- Orchestration of partners and internal functional areas
- Support for the customers in using the product in order to promote increases in performance and generate additional value for the customer

Setting new standards

Creating customer experiences

- (Virtual) presentation of products and services
- Augmented reality, gamification, multimedia

Adopting new approaches in sales

- Generating "must-have situations"
- Influencer marketing, even if this hype is already leveling off again.



Source: Based on: A.T. Kearney, Wie die Digitalisierung den B2B-Vertrieb verändert [How Digitization Is Transforming B2B Sales], 2016

Individualization and personalization – a basic requirement?

The value of “individualization” is a logical continuation and fragmentation of previous “market segments” and is in turn heavily favored by technological development. In particular, we want to draw the attention to the formation of a “shadow product” of the “physical product”, that is intended not only to make it into a more individual, but also into a “smart” product at the same time: user data.

In this way, individualization will require a further increase in data collection – and will lead to the associated questions regarding data protection laws that can ultimately be viewed as an additional dimension in the quality performance of a product/

service.

This leads to a further contradiction that quality management must face: “As negatively disposed as many customers are to the “data kraken”, these same people abandon their reservations just as carelessly if it serves their own convenience”, as the results of the Quality 2030 study show.

This does not mean, however, that precisely these customers will not insist on the quality aspect ‘data protection’ at a later point: with all the subsequent effects on the reputation of the company – and the legal and financial consequences of a less-than-desirable performance in this quality dimension.

Experience is the strategy

“Give customers a great experience and they’ll buy more, be more loyal and share their experience with friends.” © 2018 PwC

- Speed
- Convenience
- Friendly employees
- Good service

Individualization, but without the disclosure of personal data. This value demonstrates particularly well that humans are contradictory beings, and this fact represents a challenge for companies. Data protection and data security must (legally) and should (expectation of many customers) be guaranteed, yet the main winners on the market are often not exactly known for having this as their strong point. Instead, they win people over with their experience.

Thanks to social media, faux pas, whether these be data misuse, greenwashing, etc., are easily made public and are also no longer tolerated by many people (think: shitstorms):

Trust and transparency are the order of the day. Otherwise, corporate groups will have to expect a boycott by customers. But employees also have a power that is not to be underestimated here, considering that they can bring communicated values to life. However, if the alternatives are complicated, tedious, or simply “no experience at all”, people then often become quite tolerant towards the company and with their own moral resolutions.



3rd central contradiction: Sustainability vs. convenience

The fact that the consumer is a contradictory being is also evidenced by the trend towards sustainability that can be observed in the study:

This study analyzed values and their present as well as future role. It was shown that sustainability is becoming ever more important. Built-in mobile phone batteries that cannot be replaced by the user are a classic example of developments that are not appreciated by the buyer.

A trend in the direction of a circular economy can be detected. In order to do justice to this, products need to be designed, as early as in the development phase, in such a way that they are simple to upgrade or repair (modular construction). Furthermore, at the end of the product life cycle, it should be possible to recover and recycle materials to as high a standard of quality as possible. This would benefit more than just our environment, as illustrated by a statement from the study in this context: "Technically, Europe is a continent with few natural resources, but when you look at the building materials or materials that are 'stored' in our buildings and (technical) products waiting to be reused, for example, then in fact we are a continent with a rich repository of natural resources."



However, there are at least two other trends opposing these high ecological and social value aspirations, namely convenience and the desire for all things new. When under time pressure, many a good intention is cast aside. Five minutes before the supermarket closes, one is much more likely to buy a ready meal than regional vegetables, and we prefer to use time-saving disposable wipes when cleaning rather than washable cloths. And the lifespans that are becoming ever briefer by the day are, according to experts, pushed not only by the manufacturers (think: planned obsolescence), but indeed also by the consumers themselves: the faster the technological change, the stronger the desire for the latest television, computer or smartphone.

To close the circle of contradictions: And yet, second-hand and repair services are booming. In cities in particular, dozens of small repair cafés have popped up within the last few years. There, visitors are able to put their own skills to use on the devices they bring with them. A development that has also recently been discovered by politics, which now aims to provide support in the form of tax benefits (e.g. tax cuts for repairs).



qualityaustria

Succeed with Quality

“The contradictions are what makes human behavior so maddening and yet so fascinating, all at the same time”

Joan D. Vinge

How can we support you?

Make the most of the qualityaustria offer – we are always available for you as a point of contact.

If you have any questions regarding our offer, our Customer Service Center will be happy to help at
Tel.: +43 732 34 23 22 or office@qualityaustria.com.

