

Quality, resilience, sustainability and excellence: understanding LEGO's journey towards organisational excellence

Quality,
resilience,
sustainability

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Abstract

Purpose – This study aims to reflect on quality, sustainability and resilience as emerging organisational priorities within total quality management (TQM) and organisational excellence.

Design/methodology/approach – The paper uses a conceptual approach based on reflection and theoretical studies on the philosophical foundations of quality, excellence, resilience and sustainability as cornerstones for organisational excellence. Bearing in mind that sustainable excellence rests upon a combination of systemic and soft issues that define organisational ability for resilience and sustainability, there is a need to analyse and reflect on short business cases from world-leading companies and further reflect on the fundamental principles, which have helped such companies to survive, grow and sustain. This study includes such a business case – the LEGO case. In addition, a Japanese case has been included. Japanese training material on human motivation developed in the 1980s exemplifies how company managers were trained, at that time, to understand and practice human motivation, excellence principles and tools.

Findings – Organisational excellence constitutes an evolving concept as the world becomes more chaotic and interconnected with multiple disruptive shocks. Organisational excellence challenges the inflexibilities of Newtonian mindsets, recognising the paramount importance of interactions and further underlining the significance of invisible elements such as human potentiality, motivation and values that formulate the principles of organisational excellence.

Originality/value – The paper investigates the notions of quality, resilience and sustainability and their relation to motivation and organisational excellence within the framework of business management and TQM. A world-leading company – LEGO – will be used to exemplify the theoretical findings together with the Japanese Motivation Training Programme case.

Keywords Resilience, Sustainability, TQM, LEGO, Motivation, Quality, Excellence

Paper type Conceptual paper

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1. Introduction

Since the 1980s and the rebirth of management through the prism of quality, total quality and total quality management (TQM) (Dahlgaard *et al.*, 1998), excellence has been recognised as a primary challenge for organisations following an increasing adoption of quality management systems and approaches at a global scale (Oakland, 1999; Dahlgaard-Park and Dahlgaard, 2007; Kanji, 2008; Dahlgaard *et al.*, 2013).

Nowadays, in the dawn of the fourth industrial revolution, the quest for excellence continues through inspiring novel approaches that unveil new performance pillars (Dahlgaard-Park and Dahlgaard, 2021) but, at the same time, it is also reminiscent of ideals or higher purposes often found in philosophical reflections of the past (coexistence, resilience and constant reconfiguration, sustainability). The so-called Quality 4.0 (aligning quality management and Industry 4.0 requirements) is about strengthening organisational capabilities with the use of technology to produce high performing products and service experiences, something that calls for new ways of managing organisations. Thriving in this brave new world demands not only the adoption of alluring technological innovations but also integration with quality teachings/theories combined with creative leadership to support innovation and agility.

More specifically, apart from focusing on a broader organisational perspective and recognising the importance of interactions (both internally and externally), the pursuit of superior performance manifests organisational resilience (the ability to recover from unexpected events and reconfigure the organisation's business model) and orientation to sustainability (often presented as a higher purpose), as neuralgic for sustainable organisational excellence. Hence, sustainable organisational excellence refers to the capacity of organisations to maintain their outstanding performance (resulting from people doing their best and realising their full potential) and attain long-term success by taking into consideration a balanced approach on the interests of all stakeholders – customers, suppliers, employees, shareholders, the society and the environment.

In the path of its evolution, the quality philosophy has given birth to the development of several conceptual, measurement and assessment models for excellence (Molina-Azorin *et al.*, 2009) (called *Business Excellence Models*) with critical parameters and criteria for achieving and maintaining superior performance (both financial and non-financial benefits) (Boulter *et al.*, 2013). Among the essential observations reported in some review studies on excellence models is the need to incorporate criteria for *agility* (Metaxas and Koulouriotis, 2019), *resilience and sustainability* (Asif *et al.*, 2011).

Hence, excellence models should guide organisations towards improving the performance of a current way of doing things in a given context and document, measure and evaluate organisational dynamism and resilience potential for surviving in changing circumstances and allowing the continuation of their operation in a dynamic context. Characterisations of resilient organisations include a relevant ethos, good situational awareness, commitment to identifying vulnerability sources and a culture that promotes flexibility, continuous improvements and steady innovations. In addition, sustainability concerns call for expanding the traditional notion of business excellence and a reorientation towards its philosophical essence.

This study aims to reflect on quality and excellence and investigate sustainability and resilience as emerging organisational priorities highlighted in recent Business Excellence Models (for example, the new EFQM Excellence Model) for achieving sustainable organisational excellence. A world-leading toy company – *LEGO* – will be used to exemplify some of our theoretical findings together with a Japanese Motivation Training Programme case.

2. The meaning of excellence and quality

The meaning of *excellence* has been at the cornerstone of philosophical ventures by Eastern and Western minds of the ancient world. As a word, it stems from the Latin “*Excellentia*”, a word also found in the poem *Troilus and Criseyde* by G. Chaucer (late 14th century) as a synonym for *superiority, merit and worth*.

Long time before, in the first book of the Christian Bible’s Old Testament (*Genesis 1*), we can read how God, in six days, created our planet with all its *invaluable attractive characteristics, such as light, sky, water, sea, dry ground, plants, day, night, fish, birds, animals and man*. We can also read that God, after each “daily creation”, *looked at it and saw that it was good* (meaning that God was satisfied with all the creations). We call God’s creations *excellent*, namely, *outstanding or extremely good*, because we cannot find any better example where the word excellence can be used.

It is well known that the concept of “satisfaction” is closely related to the concept of “quality”, but how is the concept “excellence” related to “quality”? The answer to that question is, in principle, straightforward, and most people will come up with the same response as found in the Oxford Dictionary, which considers *excellence synonymous with being outstanding, extremely good*.

A more precise or more *down to earth* description/definition of excellence is not an easy task; nevertheless, it is desirable for knowing the degree of its attainment (Dahlgard-Park, 2009). However, there can only be a general description of the term as an attempt for a thorough definition would be unwise due to the nature of the human mind. The challenge is the perception of “Good”, which is the core of excellence, the spirit of quality and the evolution of life (Anninos, 2019). Hence, a comprehensive general understanding of the *meaning of excellence* is neither a simple nor a straightforward task. It presupposes intellectual whereabouts, namely, contemplating and reflecting on *the meaning of quality, which refers to attractive characteristics that define value*.

A draft definition of quality (most probably the first time that *quality as a term* appears in ancient Greek literature) is present in Plato’s dialogue “Theaetetus”, in which Socrates (470–399 BC) discusses with Theodore (a mathematician) and his student (Theaetetus) the nature of knowledge (see Plato: Theaetetus 182a,b; Hamilton and Cairns, 1961). Socrates describes quality as *an extraordinary word that someone cannot understand when it is used generally*. He makes a distinction between the active and the passive elements of things, the union of which gives birth to perceptions and the perceived things; thus, the one acquires some quality (a property) while the other element becomes percipient.

Regarding the meaning and definition of *quality* in the context of quality management, we can now look back on almost 100 years of evolution, starting in 1924 were the *father of modern quality control*, Walther A. Shewhart (1891–1967), had developed the so-called *Statistical Control Charts*, the theory of which became the main contribution for understanding, measuring and controlling *product quality*.

Walther A. Shewhart discussed and defined quality in his doctoral thesis from 1931 as follows (Shewhart, 1931, chapter 6, pp. 37–54) and at the beginning (p. 37), we can read about a *Popular Conception of Quality*:

Dating at least from the time of Aristotle (384-323 BC), there has been a tendency to conceive of quality as indicating the goodness of an object. The majority of advertisers appeal to the public on the basis of the quality of product. In so doing, they implicitly assume that there is a measure of goodness which can be applied to all kinds of products whether it be vacuum tubes, sewing machines, automobiles, grape nuts, books, cypress flooring, Indiana limestone, or correspondence school courses. Such a concept, is, however, too indefinite for practical purposes.

After this warning to use popular conceptions of quality for all practical purposes Shewhart comes up with his definition of quality comprising its two dimensions – *objective quality (properties or attributes of the product, independent of what the consumer wants)* and *subjective (customers' requirements, expectations, experiences, etc.) quality*.

Because a product, according to Shewhart, has an infinite number of attributes, then it is impossible to have expectations and experiences with all product attributes. In practice, the customer will only look at the most important ones or they will only look at the whole product without specifying too much in advance what kind of expectations they have when buying the product.

So, quality may have different expressions, meanings and importance for different people/customers depending on which product's attributes are most important for each specific customer, and also because, even if two customers may declare that the same attributes are essential for both of them, it is unlikely that different customers will rate the same attributes in the same way.

Shewhart's pioneering work laid the foundation for the new science about quality, *Quality Sciences*, and during the following 90 years, many researchers and consultants came up with new definitions of quality based more or less on Shewhart's pioneering work.

W. Edwards Deming (1900–1993) discussed the definition of quality as follows ([Dahlggaard and Dahlggaard-Park, 2015](#)):

The difficulty in defining quality is to translate future needs of the user into measurable characteristics, so that a product can be designed and turned out to give satisfaction at a price that the user will pay. This is not easy, and as soon as one feels successful in the endeavour, he finds that the needs of the consumer have changed, competitors have moved in, there are new materials to work with, some better than the old ones, some worse; some cheaper than the old ones, some dearer [...].

Deming did not come up with a clear quality definition, but instead, he focused on the dynamics of quality, meaning that what is good quality today will, in most cases, not be good quality tomorrow. With that background, it is easy to understand that the first of *Deming's 14 Points* ([Deming, 1986](#); [Dahlggaard and Kristensen, 1992](#); [Dahlggaard et al., 1994](#)) is about the continuous product and service improvements ensuring quality and minimising loss of business to competitors. Deming always said that: “the consumer is the most important part of the production line” ([Deming, 1986](#)), meaning that without understanding customers' and/or consumers' needs, expectations, requirements and experiences, then it is impossible to understand what is quality for a specific consumer, and hence it is difficult to produce and deliver high-quality products and services. By saying that “quality can be defined only in terms of the agent”, Deming also stressed that quality has many definitions and expressions depending on the context.

Joseph Moses Juran (1904–2008) has become most known for his short definition of quality “fitness for use”, a universally accepted comprehensive definition of quality including the following two dimensions:

- (1) the product features that meet customer needs; and
- (2) freedom from deficiencies ([Dahlggaard and Dahlggaard-Park, 2015](#)).

According to Juran, this dual meaning of quality helps us to explain why so many meetings to discuss managing for quality have ended in confusion.

Kaoru Ishikawa (1915–1989), a Japanese Professor and quality expert, discussed the definitions of quality in a way that is related to everything (e.g. quality of work, quality of the process and quality of people) in a company setting ([Dahlggaard and Dahlggaard-Park, 2015](#)). Company-Wide Quality Control (CWQC), which was developed and became

successful in Japan during the 1960s, 1970s and 1980s, illuminates Ishikawa's thoughts on the Japanese way of quality management.

So, as said above, *quality* has many expressions, meanings and definitions depending on the context or reference level, and the above quality pioneers' definitions vary because their reference levels were not the same.

Hence, *excellence* also has multiple expressions and meanings according to different reference levels (e.g. science, philosophy) and specialization levels (e.g. individual, organisational), while it mainly emphasizes perfection and human enlightenment (Anninos, 2007).

Approaching the term or concept of *excellence* from a teleological perspective, it refers to an *intended situation* achieved by the degree of a subject's or an object's quality that determines its capacity to fulfil its role. The core of quality is "Good", while quality itself is the heart of excellence (left part of Figure 1). Thus, the more a subject's quality improves, the closer excellence approaches, which then again leads to higher quality (Anninos, 2007). Hence, we have chosen to portray the interrelationship of these two concepts with two circles side by side, forming the symbol of infinity (right part of Figure 1), indicating that *The Quality Journey is a Journey without an End* (Dahlgaard et al., 1994).

Thus, according to Figure 1, excellence presupposes quality and quality presupposes excellence in a dynamic interrelationship. People cannot realise their full potential (excellence) without doing their best (quality), and for this to happen (quality), they need a particular state of mind (excellence) (Dahlgaard-Park et al., 2013).

To complement Figure 1, we have taken as an example the old Chinese/Japanese written expression of *Kaizen*, which means a *change for the good* (Kai = change, Zen = Good). The left kanji symbol of Kaizen symbolises the struggle for changing oneself, and the right Kanji symbol represents the necessary sacrifices that are needed for improvement (Figure 2).

The concept of Kaizen became well known worldwide because the Japanese companies used that concept, especially from the beginning of the 1960s, to conquer the world markets by using the concept of *CWQC*. The best Japanese companies showed, especially during the 1980s, the importance of using the strategy of *continuous quality improvements* literally company-wide. This strategy became synonymous with the *Japanese Way to Excellence*.



Figure 1.
Excellence and
quality

改善

Figure 2.
Kaizen (change for
the good)

However, before the success of Kaizen in Japanese companies, there were also some examples in the West, companies that experienced steady progress when building up a culture based on continuous improvements (Kaizen). Such a company is the Danish toy company LEGO.

3. LEGO case: Part 1

3.1 Methodology

All references/quotations to LEGO in this article can be found on LEGO's website, where key milestones of LEGO History have been told. We will not in this article evaluate the LEGO History seen with the traditional scientific glasses, which we normally do when writing research articles with one or more case studies included. We will only focus on what the founder and his successors have agreed on that has worked very well during LEGO's History and which they implicitly agreed on as so important principles that they can be regarded as key building blocks to explain and hence understand the LEGO History from LEGO's foundation until today. What we found on the LEGO website was then analysed carefully to identify an unknown number of excellence principles, which we regard as important to understand the history and also for running the company today. However, we could not find anything on the LEGO website to understand why LEGO had a severe economic crisis from about 1997 to 2005. When we dug deeper into the literature and the yearly financial reports, we could identify an 11th excellence principle important to understand the economic crisis and also important for preventing or reducing the risks that unexpected events may happen in the future – clearly a resilience principle.

We have, as an important check, shared our evaluations and findings with the owner and previous CEO of LEGO, Kjeld Kirk Kristiansen, who is the top leader and stakeholder who directly and indirectly has experienced most of the analysed LEGO's History. We are happy that the feedback through his secretary was positive, as there were no objections to go further with publishing our article in a research journal. With this explanation on how we worked with the LEGO History, we will now go through the parts of the LEGO History which we found important for identifying 10 + 1 excellence principles.

3.2 LEGO's first excellence principles

The LEGO Group was founded in 1932 by Ole Kirk Christiansen, whose personality, character and decisions have considerably impacted LEGO History. The name "LEGO" is an abbreviation of the two Danish words LEG GODT, which mean *play well*, and LEGO employees are proud to say, "It is our name, and it's our ideal".

LEGO decided, in 1935, on the company name without knowing that in Latin, the word LEGO means "I put together". Therefore, LEGO's success rests on two simple, ingenious product development principles or aims signalling to all concerned that the development of the toy should allow children to *play well by putting bricks together*. The LEGO plastic brick is by LEGO regarded as the company's most important product.

The company has passed from father to son and is now (2022) owned by Kjeld Kirk Kristiansen, a grandchild of the founder. Today the company has become the world's biggest toy producer, so it is easy for us to conclude that LEGO is an example of *an excellent company*.

So, many will ask:

Q1. How can a small company established in 1932 in a very small town (Billund) in a very small country (Denmark) develop into the world's biggest toy producer?

It is like a H.C. Andersen fairy tale, except the story is real. Then the next question for many may be:

Q2. What are the secrets behind this success?

To answer this question simply is not easy because the answer will require a book or several books, which have already been written and published. However, in this article, we only have the space to come up with simple answers. Hence, we tried to find some of the basic principles, which were important for the founder and his few employees from the very start in 1932 and which are still *excellence principles* or *core values* or *commands* in the LEGO Company.

So far, we have identified the first two excellent product development principles (*play well by putting bricks together*), which since the 1930s have laid the foundation for what LEGO should develop and produce.

The third excellence principle we found when we studied the LEGO History website was

“DET BEDSTE ER IKKE FOR GODT”

meaning:

“Only the Best is Good Enough”.

This essential and also simple principle was carved in wood back in the 1930s (see [Figure 3](#)) and put on a central place in the very small company so that everybody did not forget it and maybe reflected on it day by day during their operational tasks. Perhaps some of the employees discussed the deep meaning with their colleagues and, of course, also with the founder Ole Kirk Christiansen.

The meaning of LEGO’s third excellence principle was and still is that you should always strive to produce and deliver “the best”, even if some people may say that the best is too good for the specific market/customer.

Another and complementary meaning is that when you have found “a best solution” to a design problem, a process problem, a marketing problem, etc., then people should understand that what is the best today will not be the best tomorrow or the best for new markets. So, employees should always try to look for better solutions relative to the expected future challenges related to competition, cost-effectiveness, new products, etc. This second meaning was revolutionary at that time at the end of the big world economic crisis in 1932. It was, in fact, an argument to immediately start and continue with improvements in the quality of products and the related production processes.

About this third excellence principle, we found the following details behind on the LEGO history website:

Ole Kirk Christiansen has always guaranteed the quality of his work, something he continues to do in his work with wooden toys. He is convinced that children deserve toys of high quality, made of the finest materials, so that they will last for many years of play. He uses beech wood, which is first air-dried for two years, then kiln-dried for three weeks. It is then cut, sanded, polished and given three coats of varnish or paint. Just like real furniture. Ole Kirk Christiansen demands quality at every stage of the process, especially from his own children.

Son Godtfred Kirk Christiansen once took a consignment of painted wooden ducks to the railway station. Back at the factory, he proudly tells his father he’s done something really clever and saved the company money. “How did you manage that?” asks Ole Kirk Christiansen. “I gave the ducks just two coats of varnish, not three as we usually do!” Back comes his father’s prompt response: “You’ll immediately fetch those ducks back, give them the last coat of varnish, pack



Figure 3.
LEGO’s third
excellence principle
(1932–)

them and return them to the station! AND you'll do it on your own - even if it takes you all night!". "That taught me a lesson about quality," says Godtfred Kirk Christiansen on a later occasion.

After the lesson, Godtfred carves out wooden signs of the company motto "Only the best is good enough" and hangs them on the wall of the factory to remind employees of the company's attitude to quality.

In the preface of his book from 1996 about Godtfred Kirk Christiansen, Jan Cortzen calls him one of the greatest entrepreneurs in Denmark during the 20th century.

From the start in 1932 until today, 90 years after the company's foundation, we can understand that quality became one of the LEGO Group's principles/values, as we can read on the LEGO History website:

Quality in every detail:

Quality is and has always been one of LEGO Group's values. It permeates everything we do and shines through in the company motto: Only the best is good enough.

Hence, we have identified the fourth excellence principle:

Quality should be part of every detail.

Consequently, we can say that the founder of LEGO, Ole Kirk Christiansen, showed in the early years of LEGO strong leadership capabilities related to all forms of improvements, and he also expected "his" employees to participate in *Continuous Improvement Processes* maybe 30 years before the Japanese companies, such as TOYOTA, decided to invite employees company-wide to participate with Kaizen ideas and improvements.

LEGO gradually set up the continuous improvement processes in the LEGO way based on the humble, respectful and also open culture which characterised people in and around the small town of Billund. Ole Kirk Christiansen and his employees had never heard about Kaizen, but they did use the Kaizen principles in the LEGO Way.

4. Excellence as "quality ad infinitum" and managerial pursuit

The concept of Kaizen became well known in the West during the 1980s when western companies tried to find the secret(s) of the leading Japanese companies such as Toyota, Sony, Matsushita and Sumitomo Electric Industries, and where Toyota especially was studied heavily. Initially, the studies focused on understanding the concept of Kaizen, and gradually, the studies extended into much broader frameworks such as CWQC, TQM and Business Excellence principles and models (Deming, 1986; Imai, 1986, 1997; Ishikawa, 1989; Kondo, 1989, 1993; Womack *et al.*, 1990; Liker, 2004; Liker and Hoseus, 2008; Dahlgaard *et al.*, 1998). The broadening of the *Business Excellence Models/Frameworks* had an indirect assumption and a shared principle/criteria built-in, that continuous quality improvements everywhere inside the company as well as outside in all stakeholder relations was *the gate and road to excellence*; or said in another way, "Quality ad Infinitum" *leads to excellence*.

The concept of excellence in management has been introduced (in an indirect way) by Peters and Waterman (1982), with the publication of their book "In search of excellence – lessons from America's best-run companies". They offered evidence of the best results achieved based on the specific "7S managerial parameters" grouped into hardware parameters: *structure*; *strategy*; and software parameters: *systems*; *shared values*; *skills*; *staff*; *style*. During their study, Peters and Waterman observed that (Dahlgaard-Park and Dahlgaard, 2007, pp. 371–372):

Managers are getting more done if they pay attention with seven S's instead of just two (the hardware criteria), and real change in large institutions is a function of how management understand and handle the complexities of the 7- S model. Peters and Waterman also reminded the world of professional managers that soft is hard meaning that it is the software criteria of the model which often are overlooked and which should have the highest focus when embarking on the journey to excellence.

The following conclusion came out of their research:

- The excellent companies were, above all, brilliant on the basics. Tools didn't substitute for thinking [. . .].
- Rather, these companies worked hard to keep things simple in a complex world.
- They persisted. They insisted on top quality. They fawned their customers. They listened to their employees and treated them like adults.

Dahlgaard-Park and Dahlgaard commented on the above observations (op cit. p. 372):

We know today that many of the excellent companies (US Best-Run Companies) identified in the studies by Peters and Waterman later on became un-successful. This observation tells us what should be obvious that any model and/or lists of attributes have limitations, because they are always simplifications of reality (the context) in which the companies are operating. Hence, the observation also tells us that there is a need to analyze Peters and Waterman's findings and to compare with later excellence models which may have been designed in response to the problems and new knowledge acquired when companies have struggled to adopt or adapt early versions of excellence models and/or lists of excellence attributes.

Peters and Waterman were accused by many that their findings and recommendations in their 1982 book were oversimplified, but the answer to those accusations came in their 1985 book (Peters and Austin, 1985):

"Many accused 'In Search of Excellence' of oversimplifying. After hundreds of post-In Search of Excellence seminars, we have reached the opposite conclusion: 'In Search of Excellence' didn't simplify enough!"

The authors then presented the four critical success factors for excellence:

- (1) PEOPLE who practice;
- (2) Care of CUSTOMERS;
- (3) Constant INNOVATION; and
- (4) LEADERSHIP, which binds together the first three factors by using MBWA (Management by Wandering Around) at all levels of organisations.

Based on the four critical success factors of excellence, the authors simplified further with the following model of excellence (Figure 4).

We accept that this model is a simplification, but we have also to admit that we like it because the model signals in a powerful way that excellence is impossible to attain without committed leadership with a high focus on the critical factors of motivation, training, educating and involving employees in continuous improvements related to care of customers and constant innovation.

The idea that quality forms the foundation for excellence in management can be ascribed to Deming (1986), and this presupposes a systemic view of the organisation, a set of values that develops and supports highly engaged people and a constant orientation to continuous improvement and learning. Based on that, we may *theorise excellence*, as *quality* (as a

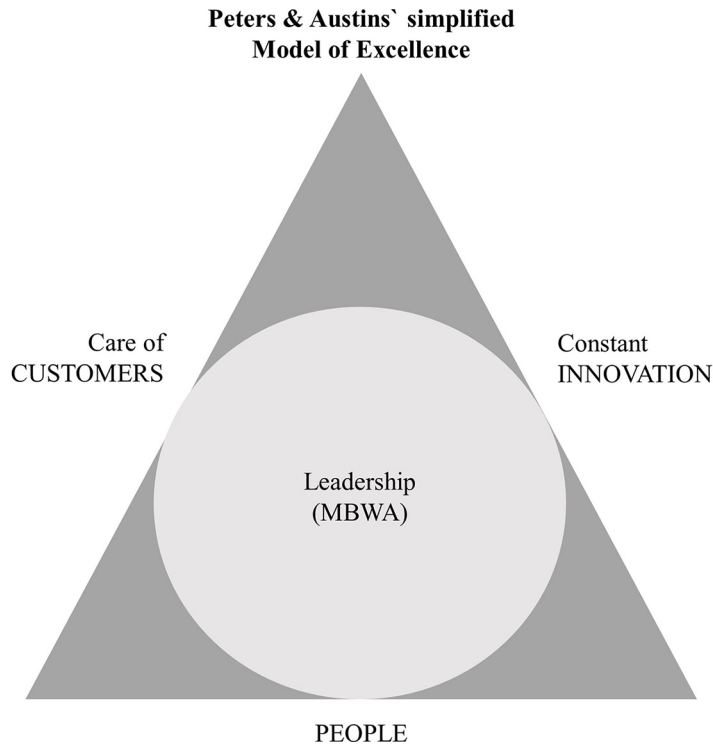


Figure 4.
Peters and Austin's
simplified Model of
Excellence (1985)

dominating value), *in a present quality level, for (better) quality* (higher level of quality) (Aminios, 2007), while viewed through twin lenses, namely, *activity* and *results* (Hermel and Ramis-Pujol, 2003). In other words, excellence is a corporate value, a purpose, a mindset of doing business aiming at the highest performance in predefined dimensions.

As it has been suggested by Dahlgaard and Dahlgaard-Park, *organisational excellence* comes as a logical consequence of people's (individual and collective) attempts for excellence (Dahlgaard-Park, 2009; Dahlgaard-Park and Dahlgaard, 2007), which has its mental (e.g. core values), managerial (e.g. practices) and technical (e.g. process, systemic) *prerequisites* (Dahlgaard-Park and Dahlgaard, 2010).

5. Excellence, sustainability and resilience

The achievement of excellence relies on crafting a suitable organisational reality through the combination and interactions of certain constituents in a given context. Structures (dynamic interrelationships among processes and factors) are flexible and constantly evolving, serving the achievement of specific goals and outcomes. After achieving these goals and results, structures may transform. Within these structures, organisational interactions facilitate the enrichment and pursuit of excellence even when unexpected events appear. Based on the description of excellence, one understands that excellence can only be sustainable because excellence will, per definition, maintain a balance among its various constituents in time while evolving; otherwise, the state of excellence cannot be attained.

Managers have the know-how, quality tools and resources for crafting and fine-tuning efficient and waste-free systems, developing and implementing an agile strategy for directing the operation of organic structures based on a purpose encompassing vision. It is also important to suggest that it is impossible to solve sustainability problems or resilience issues through a monocular/unilateral organisational approach that places the economic/business interests above all.

The ability of organisations to continuously search and exploit business opportunities and translate them into sustainable competitive advantages for long-term value is consistent with the excellence idea and is corroborated by evidence that proves that strategic orientation has a positive impact on performance (Rauch *et al.*, 2009).

According to Lengnick-Hall *et al.* (2011), a *resilient organisation* is recognised by its capacity to rebound from disruptive and unprecedented events and develop new capabilities (e.g. situational awareness, low vulnerability to systematic risks (Burnard and Bhamra, 2011) to keep pace with changes and create new opportunities (Hamel and Valikangas, 2003; Jamrog *et al.*, 2006). Otherwise stated, it is an organisation that can productively respond to the changes that disrupt the expected pattern of events without engaging in harmful behaviours (Horne and Orr, 1998).

Expectations on resilient organisations include adequate and timely resources to support new strategic directions. These resources often presuppose alliances or other types of strategic partnerships. Still, irrespectively of their source, they allow some kind of safety against disruptive events and possible formation of alternative responses. By systemic thinking, an organisation may predict its likely future, transforming its people into learners who continuously scan the environment to track signs for change.

In addition, the balance between the effective and efficient operation, the integration and quick reconfiguration of its resources (financial, technical, human) and the crafting of a “fluid” strategy are among the systemic priorities for resilient organisations. For instance, Hamel and Valikangas (2003) remind us of Crosby’s zero-defect theory (Crosby, 1979; Dahlgaard, 2015) and the six sigma approach, which (together with TQM) supports the idea of constantly evolving future orientations based on a “fluid” strategy built on the following four cornerstones:

- (1) the cognitive challenge (awareness and understanding of change and the need for transformation);
- (2) the strategic challenge (formulating alternatives);
- (3) the political challenge (focusing on future needs for products/services and using resources); and
- (4) the ideological challenge (thinking beyond the current state/model of operational excellence).

Such a fluid or agile strategy complements flexibility in systemic operation, thus creating stronger foundations for resilience and sustainability. At the same time, it requires disentanglement from past solutions, best practices and deliverance from the disorders of complacency often combined with a delusion of invincibility and perpetual excellence.

Moreover, strategic human resource management should build trust, empowerment, a climate of positive psychology and support for personal growth, which will serve as an alignment mechanism of people to organisational resilience (Mitsakis, 2019). A people-centred culture should unite everyone under the shared vision for excellence.

Andersson *et al.* (2019), in their Handelsbanken case study, concluded that among preparations for disruptive events, the issues of power distribution and collective leadership

have been highly significant. The diffusion of power, the replacement of traditional hierarchical control from self-organisation combined with individual accountability, is associated with the creation of resilience (Lengnick-Hall *et al.*, 2011), but at the same time, constitute core elements of quality management. Leaders are expected to be adaptive, design organisational mechanisms for assuring adaptation of people and, of course, undertake the task of cultivating the appropriate culture (collaboration built around trust and sharing, partnerships, flexibility and strategic intelligence) (Grote, 2019). Hence, the importance of leaders, their behavioural patterns for influencing followers, their understanding of each person's uniqueness, learning abilities and motivation are of utmost importance for creating working environments that will allow people to optimise their contributions for excellence.

Management is generally not regulated by foreordained laws, but it is precisely its relationship with philosophical thinking that emphatically underlines that *there is no excellence without resilience and sustainability orientation*, simply because excellence entails balance, harmony and long-term survival. It is not possible for an organization to be excellent and neglect corporate responsibility issues and/or business ethics or even be unable to discern the factors that will grant it resilience.

The most crucial requirement for business in a globalised volatile context is *sustainable excellence*. Excellence cannot be restrained strictly into the frontiers of an organisation. Still, it relates largely with the organisational impact on society, as it is impossible to be excellent and at the same time disregard possible externalities and ethical misconduct in business practice. In that sense, we can say that "we have a *DREAM*", which accentuate *Daring, Responsible, Ethical, Agile* and *Mindful* academics and practitioners to reinvigorate excellence, bearing in mind the *Aristotelian eudaimonia* (the highest and noblest human purpose that presupposes virtuous living) and the Japanese *kyosei* philosophy (a spirit of cooperation among people in organisations working towards the common good).

Regarding the importance of *dreaming, caring, risking, dreaming and expecting*, we also refer to the following perspective on the meaning of excellence (Dahlggaard-Park, 2009):

Excellence may be attained if one: Cares more than others think is wise; Risks more than others think is safe; Dreams more than others think is practical; and Expects more than others think is possible.

The author concludes that *attaining and sustaining excellence* is a never-ending journey, a way of doing, a form of living, a process of becoming that has meaning in personal, organisational as well as in global settings.

6. Human motivation training, excellence and resilience

Regarding the *handling of unexpected problems* that companies often encounter, we will primarily refer to Kondo (1989, p. 177) and Dahlggaard-Park (2002), where the authors present and discuss a *human motivation study* course developed in Japan in the 1980s by the Japanese Standards Association's Motivation Research Group which was led by the late Professor Yoshio Kondo. The research group studied motivation both theoretically and in several practical cases, *for instance*, the case of the Wright brothers' experiences with inventing the airplane, and the explorer Roald Amundsen and his team's experiences during the competition to become the first man to conquer the Antarctic and to reach the South Pole. By studying such cases and by comparing them with the new challenges of business corporations, they could conclude that:

In times of great change, the people who matter will not be those who search for stability, but those who can accept instability and are flexible enough to find their balance (Kondo, op cit. p. 171).

By comparing their findings with Japanese companies' new challenges and motivation needs, the motivation study group developed the human motivation study course as an intensive training programme for top and middle managers. The training course material was later translated into Danish and tested in a number of Danish companies as well as tested by TQM master students at the Aarhus School of Business from 1992 to 2000 (Dahlgaard-Park, 2002) where Professor Yoshio Kondo supervised the course to ensure consistent methodology with Japanese classes.

The overall aim of this course was to *prepare managers and their employees to be able to respond to change*. The more detailed aims were (Kondo, op cit. p. 175) "to help people study motivation through on-the-job training and find out what they must do in order to practice it more effectively".

Figure 5 below describes The Human Motivation Training course structure.

Motivation rests on three pillars mounted on a solid base, which represents self-development. Self-motivation should always come first before motivating subordinates, team members, superiors and senior colleagues.

The first pillar is "getting the job done" (thinking about completing a large/difficult task).

The second pillar is "building teamwork" (team working is vital), and the third pillar is "rousing the will to work" (making people desire to do something). The pillars support the roof representing motivation.

In this study course, each of the three pillars of motivation has been broken down into seven key points ("seven tools") to provide a methodology. The seven tools or key steps for the first pillar ("getting the job done") are as follows:

- (1) Decide to do the project.
- (2) Create a sense of urgency – the project must be accomplished.
- (3) Think positively – be convinced of success.
- (4) Investigate and prepare thoroughly.
- (5) Draw on people's inner resources and give freedom in methods.
- (6) **Be prepared for the unexpected to happen.**
- (7) Reflect on progress and turn disasters into successes.

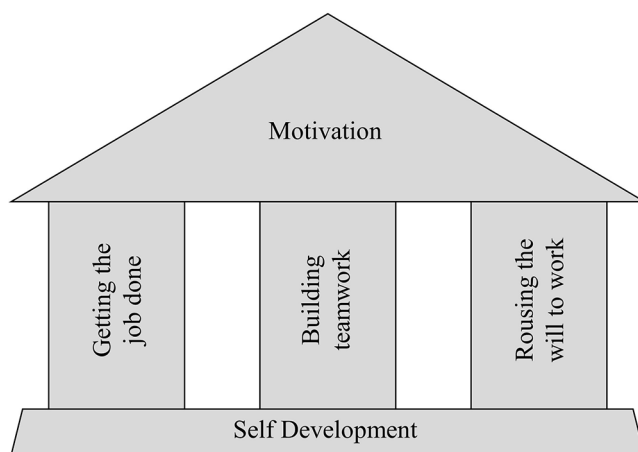


Figure 5.
Structure of
motivation training

In this article, we will only show and discuss the first pillar shortly because the seven tools of this pillar were most challenging for the Danish managers as well as the master students, and also because some tools in the first pillar were highly relevant to discuss, understand, and hence practice (meaning for building resilient, sustainable and excellent organisations). Primarily tool number six (“be prepared for the unexpected to happen”) opened the eyes for managers as well as for the master’s students that building resilient and sustainable organisations is not a problematic theoretical issue but a rather practical down-to-earth challenge which all participants actively could discuss after the course instructor had presented the tool.

In the next section, we will discuss tool six further concerning LEGO’s economic crisis at the beginning of the 2000s.

7. LEGO case: Part 2

7.1 LEGO’s excellence principles for achieving and sustaining excellence

The previous section A above about LEGO’s foundation and the excellence principles identified from LEGO history (1932 to 1957) identified four excellence principles. The first two (*play well, put bricks together*) refer to the product; hence we call them *LEGO’s two excellent product development principles*. *The third and fourth principles (only the best is good enough, quality is in all details)* are related to product development, design and production. They have close relations to the KAIZEN philosophy, meaning that *everything can and should change for the better*.

When employees gradually internalise the third and the fourth excellence principles concerning product and product development, after a while, people realise the broader value of these principles in other processes. The result is that employees begin to practice those principles wider in the company and ultimately in external processes.

The above four excellence principles were the defining principles identified in the first years of LEGO history. From 1958 to 2000, LEGO can be characterised, with a few exemptions, as a *continuously growing organisation* that grew because children *played well* with the various bricks/toys they got into their hands. The LEGO Company understood that there were constantly new playing needs for children in Denmark and abroad. LEGO became a global company gradually in the last part of the 20th century. We may say that the company grew because the company management and employees consistently brought ideas for new products and ways to develop further existing products. There was an atmosphere or culture with its roots back to the foundation period, which we may call an open and positive atmosphere for accepting new ideas. We may also say that the company management succeeded in *creating the creative organisation necessary for developing new products satisfying new needs for playing well*. From this finding, we came up with the following two excellence principles:

- (1) Create a creative organisation; and
- (2) Everybody’s creative ideas are necessary for continuous improvement processes.

After a “crucial decision” only to develop, produce and sell products based on the LEGO Brick, the company began to grow. This decision emphasised the company rules and values. Following the crucial decision to concentrate all efforts on the LEGO System in Play in 1960, Godtfred Kirk Christiansen laid down a company rule that:

No one must be able to do this better than us.

In addition, he outlines developments so far:

We know our idea is a good one. We want only the best, and we must make better bricks from even better material on even better machinery. We must get the best people that money can buy for our company.

With the above history as a background, we have identified the following two new excellence principles:

- (1) We aspire to become the best in all we do; and
- (2) We must hire, develop and keep the best people that money can buy.

From the early 2000, the LEGO Group moved closer to its customers by developing new ways of communicating and engaging with them. It moreover used the value of crowdsourcing when the company partnered with the Japanese platform CUUSOO, and in 2008, developed the LEGO CUUSOO initiative and invited its fan designers to submit their ideas for new products. The LEGO CUUSOO platform has been successful and expanded globally. It resulted in the birth of LEGO Ideas in 2014 (a community-based innovation initiative). However, both of them were not the first examples used by LEGO to engage customers in product development. Tormod Askildsen (Head of AFOL Engagement) said that “The LEGO brick is a language to express ideas and tell stories, and there are billions of ideas to be shared and stories to be told” and recognised the importance of crowdsourcing.

With the above, we identified the following excellence principle:

- Invite consumers through crowdsourcing to come up with ideas for new products.

In the mid-2000, however, LEGO was also in a deep economic crisis, searching for ways to face its difficulties. This financial crisis led the company to outsource a substantial part of LEGO's production to Flextronics, but problems soon arose concerning meeting the increasing customer demand. Hence, after a while, the company decided to terminate the partnership. Bali Padda, LEGO's Group Chief Operating Officer, said in 2012 that:

The all-important thing we learned is that one should know what is the core competence of a company. The molding of bricks is a core competence, and that we should not hand over.

It seems that outsourcing was not the solution to the serious economic difficulties and outsourcing had to be followed by insourcing.

From the above, we have identified the tenth excellence principle:

- Don't outsource a core competence; it is the company's most valuable asset!

The reason for the argument that *core competencies are the most valuable assets* of the company is simple. Any core competence results from excellent people's hard work and creativity and is, therefore, invaluable, unlike other assets such as machines, buildings, tools, etc. Continuous improvement of core competencies is important in order not to become obsolete. Outsourcing of a core competence will eventually depreciate the core competence and gradually make the competence obsolete.

We have below assembled all the ten identified excellence principles:

- (1) Play well;
- (2) Put bricks together;
- (3) Only the Best is Good enough;
- (4) Quality is in all details;

- (5) Create a creative organization;
- (6) Everybody's creative ideas are necessary for continuous improvement processes;
- (7) We aspire to become the best in all we do;
- (8) We must hire, develop and keep the best people that money can buy;
- (9) Invite consumers through crowdsourcing to come up with ideas for new products; and
- (10) Don't outsource a core competence; it is the company's most valuable asset!

LEGO did not always follow the 10 excellence principles during the 90 years of its history, but they all came up after important *learning experiences*. Today, *the 10 excellence principles (also considered LEGO's 10 COMMANDMENTS) are alive* and the leading cause why LEGO now is EXCELLENT!

In addition, LEGO's approach to excellence includes several initiatives towards *sustainability* (e.g. materials used to manufacture bricks, recyclable packaging, zero waste orientation and use of renewable energy sources continuous strive to reduce CO₂ emissions, inclusive and diverse working environment, long-term partnerships with suppliers).

As we draw to the end of the LEGO case, arguably the *one missing excellence principle* of the Japanese Motivation Training Structure (see [Figure 5](#) above) is tool six of the first pillar. From an outsider, it looks as if the "deep economic crisis" referred to on the LEGO history website suddenly came as a thief coming at night-time to rob a family's values. It looks as if LEGO *was not prepared for the unexpected to happen*. The company had punctually as a clock presented the financial results at the same time every year (during the 1990s) with almost the same results – a financial profit of about DKK 500m – but suddenly the year 1997 the financial result went down to DKK 62m and the year 1998 the financial result turned into a deficit of DKK 194m. The following years showed a turbulent period with ups and downs until 2005 when the deep crisis ended after eight years (see [Table 1](#) below).

The deep economic crisis forced LEGO to sell the first LEGOLAND Park in the world situated in Billund and develop saving plans of different kinds to survive. Outsourcing was one of the planned savings, but as discussed above, this plan proved a poor strategy for survival, and LEGO had to cancel the outsourcing contract.

It is always easy to look into a back mirror and looking back in the mirror is what we do when we suggest that LEGO might have done better in that period if they had invested in planning and prevention of the unexpected to happen. At least we feel safe to suggest that LEGO has learned the lesson from this deep crisis and has, in the following years, prepared well for the unexpected to happen and hence to prevent that the company again will experience a deep economic crisis. A good indication of that is the impressive financial result for the following years, which gave LEGO the financial power to "buy-in" the LEGOLAND Parks, which they sold during the economic crisis. Another good indication is that LEGO has grown so much that from 2020 the company is the number one toy company in the world.

Based on the above, we will suggest that LEGO has learned by mistakes one more excellence principle or command, hidden, until now, from the public:

- (1) Be prepared for the unexpected to happen.

Table 1.
LEGO's financial
results 1997 to 2005
(million DKK)

1997	1998	1999	2000	2001	2002	2003	2004	2005
62	(194)	274	(831)	366	326	(93)	(1.931)	525

Source: LEGO's website

From now on, this Excellence Principle is *an open principle* that is free to copy and profitable to practice. We do not know how they learned from the deep economic crisis, but the following years showed a long period of continuous economic growth, as shown in [Table 2](#) below.

With the above *Excellent Results*, it is no surprise that LEGO, step by step, succeeded in buying back the LEGOLAND Parks and also could announce in the Danish Business Journal *Finans* (22 November 2021) the decision to invest DKK 3.5bn in a new LEGOLAND Park in Shanghai. Also, we could read that for the first half-year of 2021, the financial result was all times high (DKK 6.3bn), which benefited not only the owners but also the employees, who for 2022 will get two weeks extra holidays at the end of the year plus additional bonuses paid out in April 2022. When we also read in the 2020 report that LEGO also plans to invest up to DKK 2.6bn over the next three years (= US\$400m) to protect the environment, we can now conclude that LEGO has now grown into a *Sustainable Excellent Company*.

A piece of interesting information about LEGO's future plans to assure that the company will *stay excellent* can be read from the 2020 yearly report: *we will continue to invest in innovative ways to blend the power of physical play with the digital world*.

8. Concluding remarks and recommendations

Excellence, as a management-related concept with deep philosophical foundations that has been exemplified by the quality movement, analysed and discussed throughout literature and among practitioners, is being described as the ultimate organizational quest and challenge in various fields. At the *individual level*, excellence is highly dependent on the cultivation of virtues, on knowing thyself and personal advancement through mental and spiritual evolution, broad perception through general education and dialogue, while the *social/organisational level* basis is balance and harmony among the multiple dimensions of its application, which include *sustainability, learnability and innovation*.

It is relatively common to have organisations marked with the seal of excellence; however, in today's volatile and "technology amalgamated" world, it is *sustainable excellence* that matters.

Among the suggestions formulated (already in 2009) by academics and executives under the coordination of Gary Hamel regarding the *face of management of the future*, there are three which highlight ethics, sustainable development and responsibility, namely ([Conaway and Laasch, 2014](#)):

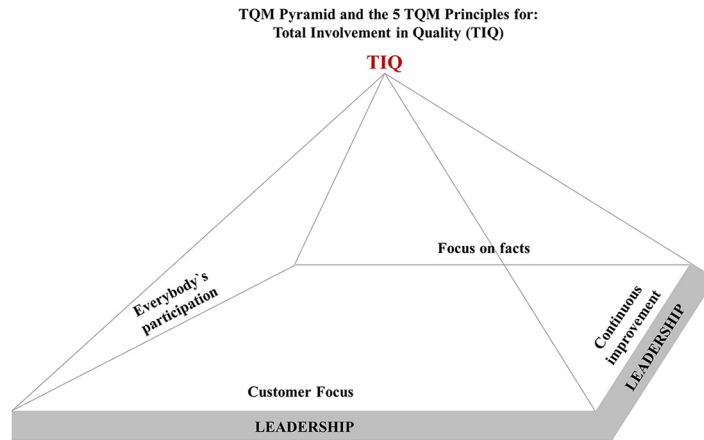
- Assurance that management serves a higher (socially important) goal;
- Integration of the idea of collective effort and organisational citizenship behaviour in management systems. The interdependence of stakeholders should be reflected on processes and practices; and
- Reconstruction of the philosophical foundations of management (focus not solely on efficiency).

2009	2010	2011	2012	2013	2014
2.204	3.718	4.160	5.613	6.119	7.025
2015	2016	2017	2018	2019	2020
9.174	9.916	8.306	8.076	7.806	9.436

Table 2.
LEGO's financial
results 2009 to 2020
(million DKK)

Source: LEGO's website

Figure 6.
TQM pyramid
showing the five
basic TQM principles



Old business models for excellence should be redefined and recontextualized according to a theory that primarily recognises that we, as human beings, coexist and that we are outcomes of interactions (at the physical, spiritual and mental levels). Excellence should include not only tools and techniques but also methods to stimulate and improve interactions (inside and outside of organisations), reconsider and rebalance business priorities towards sustainability. Furthermore, because of increasing disruptive shocks, business leaders have now a stronger orientation on developing operating models that assure excellence in the long-term. This argument presupposes a focus on resilience, its dynamics and its relevant metrics that should examine the existence and the utilisation of competencies, interactions, resources, processes and structures with the final aim to create circumstances not only for recovery from these disruptive events but the dynamic reinvention of new business models.

The newly revised BEM models, for example, the new EFQM model (2019) and several related national revised BEM models like, for example, the Swedish Excellence Model is the first step towards a new generation of business excellence frameworks that highlight sustainability at the heart of the value chain(s) and/or new established business platforms, disruptive thinking and agility for building resilience while they embody the essential TQM principles (Dahlgaard and Kristensen, 1992; Dahlgaard *et al.*, 1994) (Figure 6).

These principles include the focus on customers' needs, everybody's participation, a strong emphasis on evidence-based management (facts) and continuous improvement. The commitment of leadership to these principles and their integration into the organizational culture will drive business behaviour and, of course, should be present in any attempt to adapt a business excellence model with the final aim to experience/achieve sustainable excellence.

The above five TQM principles are still valid, but today, the *Customer focus principle* must be supplemented with a focus on other major stakeholders' needs, expectations and experiences. By doing so, we have extended or changed the customer focus principle into a broader stakeholder focused principle and sustainability/environmental opportunities and improvements will be handled as the traditional quality improvement opportunities. The LEGO Company is an example of such an approach.

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