

PATH TO BUSINESS EXCELLENCE: INNOVATION AND QUALITY

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ABSTRACT

In the competitive global market quality, costs and productivity are particularly important indicators for the corporate management. Quality is prioritised due to the reason that this is one of the major competitive advantages. Economic growth is only possible when innovations constantly surface, and that the market adopts. A company can hardly survive without innovations that produce profit. Anyone who undertakes the path to excellence should be in front, has to overtake others, must achieve a leap forward. To be in front means to be better, more effective, more efficient, more economic, more ecologically aware or more social and proactive than others. The direction and speed of change are important. One can only reach the top through major changes, through major innovations including evaluation phases and continuous improvement. The present situation is discussed in details as lesson learned in the past and as quality vision of the future.

1. INTRODUCTION

For quality managers and quality experts as well as for general managers who are involved in quality matters the question for the future of their job, their profession, their business, their company or the whole society concern the importance of quality for the future world. Quality is mostly prioritised in business management due to the reason that this is one of the major competitive advantages. However, the aspect of quality as a competitive advantage is changing especially after the economic crisis. To overcome the problems including the 2008 economic crisis and the global climate change and to built up social, economic and environmental responsibility in all areas, the need for not only creating breakthrough levels of productivity improvement but also assessing productivity from different perspectives has been understood clearly.

2. MATERIAL AND METHOD

On the competitive global market quality, costs and productivity are particularly important indicators for corporate management perspective to keep improving and maintaining quality, but also production volume, delivery performance, and productivity as well as costs. Economic growth is only possible when innovations periodically surface, and that the market adopts. A company can hardly survive without innovations that produce profit. Anyone who undertakes the path to excellence should be in front, has to overtake others, must achieve a leap forward. To be in front means to be better, more effective, more efficient, more economic, more ecologically aware or more social and proactive than others. The direction and speed of change are important. One can only reach the top thorough major changes, through major innovations.

The driving forces behind the management challenges for the new decade seem to be the followings:

- Globalization
- Worldwide competition
- Innovation as a key process
- Changing working conditions through communication technologies
- International networking
- Decreasing number of workers in production businesses
- Increasing number in new businesses
- New forms of work
- Changing public sector through privatisation and New Public Management, incl. quality management.

3. LESSONS LEARNED IN THE PAST

Total Quality and continuous improvement are synonymous. One of the best works on this topic is "Kaizen, the Key to Japan's Competitive Success" by Massaki /1/. He presented a model linking innovation to continuous improvement, stating that in the West too much emphasis is placed on innovation.

Improvement can be broken down between KAIZEN and innovation. KAIZEN signifies small improvements made in the status quo as a result of ongoing efforts. Innovation involves a drastic improvement in the status quo as a result of a large investment in new technology and/or equipment.

Lesson learned No. 1.: Traditional continuous improvement is considered to be too slow for the present competitive environment.

On the other side we can't continuously work on Business Process Redesign (BPA) or make innovations systems require a minimum stabilisation period. However, during that period we must continuously improve and use KAIZEN.

4. LESSONS LEARNED IN THE 90TH

Which was the dominating success factor of the tension triangle? It was the time. Winners were companies, which were faster in product, and service development, which could offer services quicker, whose delivery time was shorter. Winner was the quickest, not the best and not the cheapest. Time constraints produced quality improvements and cost reductions but the opposite happened much more seldom. Quality of products and services was a must: No defects, no failures, and expected benefits for the user.

Lesson learned No.2: A consistent quality level of products and service is absolutely necessary for the global business of European enterprises. This level must be sustainable and directed towards the expectations of the users.

The hierarchy of quality formed the basis for the EFQM model. It shows the dependence of the consistency and sustainability of product and service quality from the quality of the processes and the quality of the enterprise that means of the quality management system of the

enterprise. In the last decade quality management systems became a must for all type of organisations. They are often based on the models of ISO 9000 standard series.

Lesson learned No.3: The integration of quality management into Business Administration is essential for the global economy.

Through the introduction of quality management the economic weight of the quality discipline increased essentially compared with the former situation of quality control and quality assurance. Already, the still isolated partial management models of ISO 9000:1987 and: 1994 made a big progress. But the real breakthrough came with the integration of quality management into management theory and business administration. With the book "Integriertes Qualitätsmanagement – das St.Galler Konzept" of Seghezzi prepared the path /2/.

The success of the Japanese companies with Total Quality Control stimulated American leaders in the eighties and European leaders in the nineties to develop instruments for reaching excellence in global business. The reasons for founding the EFQM was the lack of innovative concepts of business schools which stimulated the CEO's of fourteen European large companies to give the signal for a European concept of TQM, later named Excellence. It fills a gap in general management and presents a generic management model suitable for the incorporation of all management duties. TQM is a Trojan horse through which new management concepts gain access to the economic environment.

The growth period of the nineties had its absolute peak in 2000 with highest rates of turnover, share values, profits and brightest forecasts. The year 2000 was the year of the economic party. What followed was the economic hangover in 2001.

5. BREAK IN 2001 AND THE NEXT STEPS

The whole economy suffered from a dramatic fall-down in 2001. Hit were especially high-tech branches like telecommunication. For survival companies had to reduce costs. In most cases this meant lay-off of personal and selling of peripheral businesses. In most cases those businesses were profitable. Laying-off personal in a ethical way became an innovative task. Most companies realize that cost reduction alone is not enough. They consider quantity management as a new success factor and include it in their tension diagram. It contains flexibility in quantity, decrease of volumes with low retention costs, outsourcing of peripheral activities, concentrating on key capabilities.

6. EXTENDED EFFORTS AFTER THE 2008 ECONOMIC CRISIS

The global economic crisis is having a broad impact across many sectors. Most notable is the crisis in financial institutions and markets as well as on both developed and developing economies. In addition commodity and service markets have been impacted and there are serious implications the crisis has for the global economy including the quality development and its participants. Opportunities for product and service need to be identified and taken advantage. Sustainable and quality oriented production methods, including those of suppliers, need to be developed. The companies must use their capital resource efficiently and tailor their products to meet changing consumer demand and seek out strategic alliances. Lastly, human capital will be at a premium and programs and strategies need to put in place that develop

human capitals as well as inform, educate, and provide overall quality oriented direction and trust.

7. INNOVATION – PATH TO EXCELLENCE

As a result of extensive research, it is undisputed that economic growth is only possible when innovations constantly surface, and that the market adopts. A company can hardly survive without innovations that produce profit.

We know three innovation strategies.

In the cost conscious firm, profit margins are low and rival competition is fierce. These firms are forced to cut costs to stay competitive, and there is a minimal focus on innovation.

A firm making product and service quality a high priority, the quality oriented firm, enjoys a competitive advantage – until rivals introduce a new product or service. Quality of the obsolete product or services then becomes a moot point.

The innovative firm is focused on developing new value added products and services. New products or services give the innovative firm a competitive advantage over its competitors. Quality and cost control programs then sustain this competitive advantage.

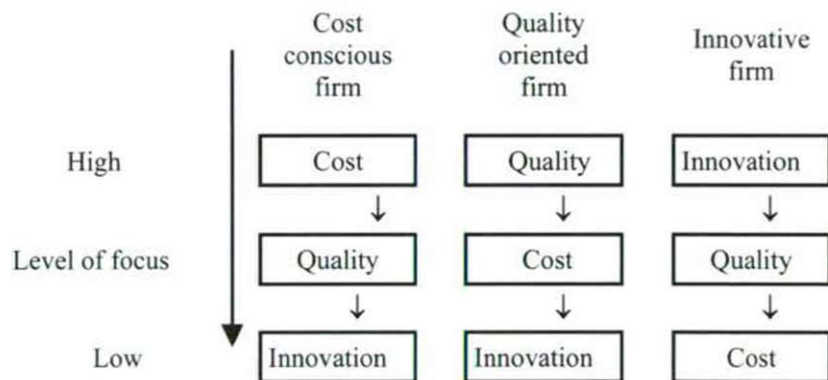


Fig. 1: Three Approaches to Innovation

8. INNOVATION IS A KEY SUCCESS FACTOR FOR BUSINESS EXCELLENCE

On the path to business excellence, models like the EFQM or the new ISO 9004 can be helpful, but are no guarantee of success. To select the right model, one must understand that there are, in fact, two kinds of models, i.e. the so-called 'better and better' models and the 'good enough' models. Only the first help supports changes in the direction of business excellence. The efforts must come from one's own inner drive, led by company management, and adopted by as many staff members as possible.

Intermediate goals such as the five steps proposed by the EFQM can support perseverance, and lead to new impulses. But it has to be understood by all that after achievement of an

intermediate goal, the journey has to continue, or one will be overtaken. One never reaches the final goal.

In order to avoid false expectations from the implementation of models, it should be understood that the 'good enough' model does serve another purpose. Models like ISO 9001 or 14001 set minimum standards. Companies that satisfy or exceed these requirements can be certified. Models of this kind form the basis for legal regulations or contractual agreements and create trust in the capability of certified organisations.

When the existing state of the innovation process is known, phased-in approach of the new quality tools can then be completed over time. A good place for introduction of the new tools might be at the interdepartmental meetings that occur during the innovation process.

Table 1: The Seven New Quality Tools and the Innovation

Degree of Complexity	New Tool	Useful Area
Low 1	Affinity diagram	Brainstorming, consensus
2	Relations diagram	Cause and effect
3	Tree	Logic based problem solving
4	Process decision program chart	Identifying best solution
5	Arrow	Resource planning
6	Matrix	Determining interrelated factors
High 7	Matrix data analysis	Quantitative analysis

9. SUCCESS FACTORS FOR INNOVATION

In view of the significance of innovations towards the achievement of excellence followings are the most important factors for successful innovations.

Success factor 1: People

In the case of all winners of the European and National Quality Award competitions, as well as in many other companies, people with their knowledge, know-how and creativity are the most important factor. However, it is also necessary, that they be committed to active changes. People must want changes and not persist in existing situations.

Success factor 2: Leadership

Creative people who welcome change are convinced of their ideas and are often individualists who do not care for work in project teams.

Thus leadership becomes all the more important as the second success factor. This does not refer only to motivation and guidance of staff, but also the selection of the best solution among several propositions. Equally important are timely decisions in the innovation process, which can only be made correctly in line with a correspondingly broad vision competence of management and operational expertise. In many companies selection and decision-making are protracted; this can be avoided by developing pressure.

Success factor 3: Culture of innovation

Concerning a company culture this is apparent through communication, transparency, failure tolerance, willingness to take risks and for ongoing learning, wanting to change, and an environment that calls forth enthusiasm, fun and happiness in the work.

Such a climate can be seriously damaged through unwillingness to take risks and petty implementation of risk management. Those who want to avoid risks must stand clear of innovations, as innovations without failures are not possible. Instead of avoiding risks, failures may be dominated by recognising and bypassing them, not repeating them, and learning from them.

Success factor 4: Company strategy

The strategy must establish guardrails between which the innovation process runs. If such guardrails are not in place, then the company with an applied culture of innovation may quickly fall into chaos. The strategy must also push desired changes for cultural development. It has to optimise the interplay between steps of large and small changes (Fig 2). Too many small steps, as is frequently the case in the implementation of the EFQM model, indeed obtain the commitment of the staff but fail to solve larger problems. Too many large steps at too fast a cadence lead to turbulence, chaos and inner resignation of the overtaxed staff.

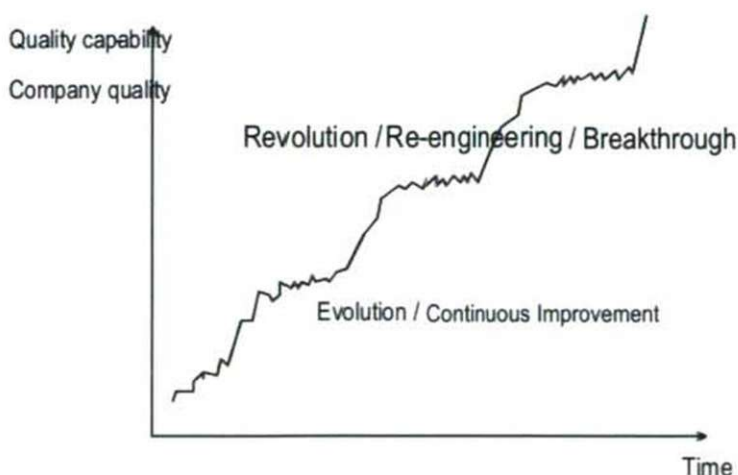


Fig. 2: Change through large jumps and small steps

Success factor 5: Organisation

As the final factor, organisation should be mentioned. Frequently, the false opinion prevails that innovation requires creativity above all. The truth is that every innovation process consists of interplay between creative and repetitive phases. In particular, at the beginning, in the creative part, concepts are outlined, ideas gathered and evaluated, various solutions developed and tested for their feasibility. The repetitive part covers the carrying out of examinations and tests, the conversion of solutions and their practical implementation. The significance and the cost of the creative work are usually over-valued. In my opinion, the ratio is 20 to 80 with the focal point in the repetitive part (20% inspiration, 80% transpiration).

The innovation process can take very different forms depending on the company size, branch, environment and complexity of the innovation process. The form adopted may go from a much personalised pragmatic management using check lists, up to the formation of a large project team.

It is also important in the formation of the organisation to pay attention to the use of sources of innovation. On the one hand, sources are ideas and inventions, on the other, technological possibilities, and finally the requirements of customers, partners and society. Sufficient sources are available to be tapped or developed through benchmarking and research.

10. RESULTS AND CONCLUSIONS

It is difficult to make a forecast, even after a thorough analysis of facts and drivers, but following answers are possible:

1) **Quality management** will be highly effective if it handles quality in relation with costs, quantity and time (Fig. 3) and if it is completely integrated in general management. That means to apply a concept of Integrated Quality Management.

2) **Best practices in innovation**

Innovation research so far has uncovered two types of best practice, one directed to effectiveness in “doing the right projects” and the other directed to efficiency in “doing the right projects right”. An overview of best practices as revealed by different studies is following:

- Clear product definition
- A structured R&D process
- Use of cross-functional project teams
- Use of integrated virtual development tools

3) **What about models like ISO 9000, EFQM, Balanced Score Card, 6 Sigma etc.?**

We have to differentiate. Models of the type, which support the managing of product, service and process quality, will flourish. This is the group of models where ISO 9001 and 6 Sigma belongs.

- What about certification of quality management systems? Certificates must be reliable. No ‘cheep’ certificates. The number of competing certifiers is increasing constantly. Certifying has become a business. Due to the competition between the certifying organizations the quality of certificates could decrease. This reduces the reliability of the certificates and destroys their real value. Certifiers can kill their own business.

- Certificates need recognition otherwise they lose any value. To avoid the destruction of certificates in an open market of certification it is necessary to have some formal regulation, generally named accreditation schemes.

4) What about Excellence Models? As already mentioned they were very successful in the last decade because of two reasons, the threat of the Japanese Quality Offensive and the gap of models from business schools. Both reasons are no longer valid. The Japanese companies have lost their dominating power. And the business schools and large consulting firms have regained their former position. They come up with new concepts in Strategic Management, with Balanced Score Cards etc.. So, excellence models are now under competition and pressure. To survive they need further development.

- For example the EFQM Excellence Model. It is a valuable instrument but expensive to apply. A study from 2002 and 2003 showed that for many companies, the results are lower than expected, the model is not integrated in general management and the Self Assessment by EFQM model is too complex.
- The integration of partial management systems into Integrated System the partial management systems are isolated with conflicts in the contents, with duplications of activities, using different terms. To improve their effectiveness and efficiency they should not remain as standalones. It is generally accepted that partial management systems should be coordinated and if possible incorporated into a generic system. In practice, the integration is restricted to quality, environment, OHS and risk management. Besides quality management these disciplines are highly regulated and bureaucratic. This is a disadvantage for quality systems.
- The new ISO 9004 is a model for an ongoing journey to improve quality management systems starting with the minimum level of ISO 9001. It is dedicated to the organization itself and not for the outside world. This model is the offer of ISO to the industry to build up effective and efficient quality management systems. For many companies this model would offer an appropriate path for continuous improvement of their system. Only a smaller amount of companies was interested in this tool for management improvement towards excellence.



Fig. 3: Forecast for Quality Management and Business Excellence

So, excellence models are models for general management. For those models, which have their origin in TQM, further development is necessary. We even foresee (Fig. 3) a separation between Integrated Quality Management on the one side and the excellence programmes on the side of General Management. Then, quality management can keep its economic weight as a young part of Business Administration whereas excellence concepts can gain even more value within general management.

Anyone who undertakes the path to excellence should be in front, has to overtake others, must achieve a leap forward. To be in front means to be better, more effective, more efficient, more economic, more ecologically aware or more social and proactive than others. The direction and speed of change are important. One can only reach the top through major changes, through major innovations. One has to recognise that never actually reaches the goal, but is always on the way to achieving it.

REFERENCES

1. Masaaki Jmai (1986): KAIZEN, The Key to Japan's Competitive Success: The Kaizen Institute, Japan
2. Seghezzi H. D. (2003): Integriertes Qualitätsmanagement – Das St.Galler Konzept, Aufl. Carl Hanser Verlag München, Wien, Austria (1. Aufl. 1996)
3. Levesque, J. and Walker (2007), H. F.: The Innovation Process and Quality Tools. Quality Progress 40 (2007) 7, pp. 18–22