

Marilyn Dyason¹

Article info:

Received 25.06.2021.

Accepted 26.11.2021.

UDC – 005.6

DOI – 10.24874/IJQR16.04-04



INTEGRATED LEARNING STRATEGIES: NEW APPROACHES TO EDUCATING LEADERS IN STRATEGIC QUALITY MANAGEMENT

Abstract: *This paper builds upon the author’s widely published research into the failure of organisations to embed the principles and practices of quality management in organisations, citing significant barriers relating to culture and leadership drive. With economic and sustainability pressures on organisations, new approaches to educating leaders is necessary. The author’s research findings reveal that traditional teaching methods and formal leadership development programmes are not sufficient to meet current economic demands and fail to contribute to the overall effectiveness of leaders in supporting the organisation’s future competitiveness. This paper explores new approaches to educating leaders in more strategic and contemporary perspectives of quality management, through the vehicle of action-learning problem-based methodologies, termed “integrated learning strategies” and discusses how these methodologies are proactively engaging leaders in the pursuit of organisational success.*

Keywords: *Leadership, Culture change, Competitiveness, Learning strategies*

1. Introduction

Achieving and sustaining a competitive edge in the current economic climate has become an increasing challenge for leaders, compounded by the global pandemic of late. It has brought into sharp relief the relevance of strategic quality management principles and practices in weathering this storm – to survive and to grow. Renowned commentators in the field of quality management and competitiveness continue to emphasise the opportunity to engage with these methods in a holistic way: never before have these methods been so needed.

Although leadership is increasingly recognised as key to competitiveness and

sustainability, recent research indicates that many organisations fail to develop leaders with the necessary skills, including critical thinking, creativity and innovation. Emphasis continues to be placed on so called “hard-skills” such as technical ability and data analysis. However, in order to truly compete in the turbulent and fast-moving industrial context today, leaders need to be equipped with the ability to transform the vast array of data and knowledge into positive action. The findings of recently published research studies indicate that this is indeed a global problem.

The objective of the author’s research is to explore, through an action-research study the reasons why leaders fail to fully exploit this

¹ Corresponding author: Marilyn Dyason
Email: jwona.staniec2p.lodz.pl

opportunity and to further understand the significant competitive issues faced. An integrated learning model is developed and applied to a sample group that addresses leaders' needs in the context of the social and economic environment, at the same time meeting their individual needs as well as the needs of the business to thrive and grow.

In order to explore the current state of education and training in quality management, and ensure that the current opportunities for training and education in quality management meet members and organisational needs, the Chartered Quality Institute has recently published a report on "The future of work". (2019). The report urges quality professionals to equip themselves with new skills required to develop a more agile quality management system that is capable of adapting and responding at the pace needed for tomorrow's world of work. An essential skill of critical problem-solving is highlighted, that is the ability to translate data science and operational knowledge in order to shape strategies and facilitate rapid problem-solving using creative skills. New skills of complex problem-solving, critical thinking and collaboration are needed. Softer skills are also emphasised, that of emotional intelligence, multi-disciplinary working, such skills becoming pivotal differentials in the workplace. It is concluded that quality management educators must evolve the way they deliver educational interventions by offering personal learning opportunities, engagement and diversity. Acknowledging the deficiencies with the current education which tends towards "silo" subjects and is not sufficiently holistic, such a transition is to be achieved through education and new approaches to lifelong learning.

A comprehensive literature review of recent publications, together with topical research studies support the need for a new approach to leadership education in the field of strategic management. Significant recent research studies highlight the failure of leaders to develop the necessary critical thinking

highlighting the need to equip leaders with the skills needed. Pearson (2019, 2020) Thompson and Pascal (2015). The ability of leaders to develop a more creative and innovative culture, akin to an entrepreneurial culture is a critical component for survival and growth. The extent to which this can be learned is increasingly being recognised. Shane and Venkataraman, (2020) argue that entrepreneurship is "a dynamic form of social and economic behaviour in which people respond to environmental signals about the availability of opportunities and the resources with which they can be exploited". Backed by their study in how people learn Rae and Carswell (2020) argue the case for a conceptual model of entrepreneurial learning: their key point being that whilst these capabilities can be learned there is a tension between the academic teaching of educational programmes which tend to be from a pedagogical perspective and the practice of behaviours in the naturally occurring conditions. They conclude that the action learning methodologies or experiential approaches classically propounded by Kolb (1984) are more appropriate where the learner is able to experiment with the application of the methods in the context of their own environment.

This innovative research study engaged with executives experientially in a wide range of sectors, operating nationally and internationally including small to medium enterprises in the private sector and with multi-nationals in order to gain an understanding of the pressures faced and to identify the skills, behaviours and competencies required of leaders. The study took place over a two year period, including during the global pandemic. The author further developed the AQAL model of "Integral Theory" established by Wilber (1996) and interpreted and applied the underlying principles of this psychological model to an organisational leadership and competitiveness context. Early evaluation suggests that this is a powerful way in which to overcome the barriers to embedding

strategic quality management in organisations. The results and lessons learned are further analysed and explained using an “integrated learning” framework. The originality and value of the study is two-fold - firstly in applying action research methodology underpinned by an “integrated learning framework” developed by the author and secondly, through the interactive dynamics of the framework leaders were able to develop a more external visionary understanding of strategic quality management, embracing contemporary management perspectives such as the eco-system, wider sustainability and contribution to economic growth and wellbeing of society.

2. The future role of strategic quality management

Historically, the evolution of quality spans a number of quality “eras” with changing perspectives from inspection and detection, through to quality assurance to a more strategic perspective, such as TQM. In its research study the Chartered Quality Institute (CQI) (2020) emphasises the new quality management “discipline” namely that the skills be embraced organisation-wide, translating policy into ways of working and culture, balancing standardisation with the need for agility and innovation at pace with customer value as a key strategic driver through quality management. Common themes emerge from recent research studies under the concept “Quality 4.0” Zairi (2019) Kiselakova et al (2020) the results of these studies underline the need for a structured approach that includes prioritizing strategy in order to resolve critical pain points, defining a clear vision and roadmap, establishing technology and data enablers, and closing skills gaps.

Recent publications note the “vision for change” that the quality management must be prepared to embrace if it is to continue to be of relevance in the bid for competitiveness. There is widespread acknowledgement of the development of strategic quality management

in tandem with changes to industry from inspection eras through to a more strategic emphasis today. Despite this, there is a failure still to engage leadership in focusing on the bigger strategic picture and the external environment in adopting quality management approaches. A Boston Consulting Group (BSG) study in collaboration with the American Society for Quality (ASQ) entitled “Quality 4.0” finds that “quality takes more than technology”. Participants in a global survey recognize that Quality 4.0 is important at all stages of the value chain, but few of them have launched a programme to implement it as noted in a study by Deloitte (2019). There is no doubt that quality management has an important role to play in global competitiveness as revealed in the United Nations Sustainable Development Goals agenda. “Transforming our world: the 2030 agenda for sustainable development”. The aspiration to achieve a higher level of purpose embraces the concepts of sustainability within quality. Quinn and Thakor (2019) for example explore how striving to such a higher purpose could drive quality management. These wider strategic concepts are explored in a report by the World Economic Forum (2020). in which they analyse how companies are performing.

Critical success factors for TQM are identified by Aquilani et al. (2017) Kulenovic et al. (2021) who suggest themes for further research to address skills gaps such as the need to understand customer value and flow, gaining leadership commitment, supplier management, information and analysis and process management. These themes are corroborated by an action-learning study that engaged with industry to identify areas for further research in a bid to deliver “Quality in the year 2030” Fundin et al. (2020). Their findings support the need for organisational and leader knowledge on how to develop a capacity for learning, change and adaptation. re-affirming the “systems thinking” originally expounded by Deming (1986) but recognising the challenges that still exist in this area. A study by Khurniwan et al (2020)

examining success and failures in TQM education also supports these findings.

3. Traditional teaching methods v. integrated learning approaches

The problems associated with traditional teaching methods highlighted by academic researchers support the author's findings, namely the difficulty with embedding strategic quality management principles and practice in the workplace. Traditional (pedagogical) teaching methods are "teacher led" involving instruction, memorising and often case study examples to illustrate the subject. Recent years has seen a transition towards student-centred learning where the student learns about a subject through the experience of solving a problem. Nurtanto (2020) explores this further, proposing that the educator adopts a more facilitative style of teaching with a view to the learner gaining skills and knowledge that can be applied in future practice.

In the "integrated learning" approaches, the teaching evolves from a competitive need and learning takes place in the context of the organisation, through interaction and engagement with leaders whilst focusing on the organisation's strategic direction. Against this backdrop, the needs and expectations of the learners themselves is changing. As illustrated in a recently published report into education and learning for the modern world Pearson (2020) it is noted that organisations cannot afford the time to release key individuals for training, often leaders are geographically dispersed, and crucially, there is difficulty in finding the right provider and lack of appropriate training. Learners express a wish to continue to learn beyond the traditional "classroom" approaches, the needs driven by anticipated organisational and skill changes. The onset of e-learning and availability of the internet reduces the need to attend formal classes. These findings match global trends towards virtual learning.

This paper explains how a more "holistic" approach to teaching multi-faceted quality management concepts is resulting in a greater degree of leadership inspiration and motivation to perform at a strategic level: additionally, leaders are more influential in leading the transformational culture change required. The challenges, benefits and opportunities resulting from these more innovative educational approaches are illustrated through this study from the author's experience of developing leaders in complex work environments and in the face of global challenging circumstances. A new integrated learning model for the development of leaders is proposed based on these research findings.

4. Current leadership education: the need for new approaches

Research shows that education of leaders, particularly in the context of quality management, emphasises the skills and knowledge of typical tools and techniques but many quality initiatives fail to be fully embedded into the core and heart of the organisations values and culture and therefore lack sustainability. A research study focusing on the changing nature of leadership and current pressures and demands, needs to be considered within the context of the external environment. The turbulent socio-economic context within which organisations operate has cruelly exposed vulnerabilities in strategic orientations and competitiveness with many powerless to respond and adapt to the global challenges arising from the pandemic, for example. This has a profound effect on the way organisations are structured and exposed those that do not possess the agility required to respond and adapt. Much has been published around the impact of the 4th Industrial Revolution which largely anticipated a technological revolution, accompanied with speed of transformation required. Schwab (2016). However, new priorities emerge from the current global crisis and these relate to meeting the

challenges of sustainability in terms of survival and creating the dynamism needed for growth. The strategic imperative now embraces the value that organisations contribute to society at large, not only in terms of economic growth but also recognising the role that can be played in generating wellbeing and people happiness “the human dimension”. The key issue is what contribution can strategic quality management and quality management education play in meeting this challenge?

The growing importance of adult education is highlighted in a recent global learning survey noting that employers and employees alike are recognising the importance of training and development in order to stay competitive, but there this also a shift in culture towards lifelong learning and consequently an impact of this on the nature of delivering education and training. (Pearson 2019). Respondents identified leadership and management skills as the most critical area for the development of the business. A study published by Deloitte (2019) entitled “How leaders are Navigating the Fourth Industrial Revolution” found that leaders were less prepared than they thought they were, with signs that leaders lacked understanding and vision and were therefore failing to define clear strategies. Some leaders claimed to be overwhelmed by all the different options.

Major shortcomings in the current education of leaders emphasise a failure to facilitate and support the learner in addressing the holistic nature of strategic change, including external eco-systems and socio-economic factors as well as the internal cognitive and socio-emotional processes underpinning leadership learning and decision-making. In the world of quality management education research indicates that more “integral” approaches to educating leaders is required. Wamsler, (2019). Key to the new approach is the establishment of a sense of purpose or critical rationale for the learning, from a personal and organisational perspective, such a context ensuring that the organisation’s competitive needs are met in tandem with the

development of leaders. Traditional leadership education focuses on specific topics and fails to take account of the complexity of management issues and the impact of external factors and internal, culture factors.

Other commentators emphasise the need to develop critically reflective practice in leaders, noting that traditional educational approaches fail to integrate theory and practice, neglecting the importance of leadership “reflection”. Thompson and Pascal (2012). Recent research findings indicate that this is still so today. Fundin et al (2021). On the other hand, reflective learning offers an approach to education which is primarily developed through practice and the systematic analysis of experience. New integrated models of learning blending theory and practice are moving away from class-based learning towards learning that is transformed into action: “active learning” that engages participants in the learning. Characteristics of active learning include the choice of topic or curriculum jointly with the learner rather than decided by the trainer or educator, and emphasises a more open-minded enquiring approach to professional practice. The importance of thinking ahead – future thinking – is essential in determining how the knowledge will be applied within the context of an organisational culture that supports such leadership development. Many, on the other hand, are constrained within their current roles. Another challenge leaders face is the lack of time needed to reflect and to use insight to look at different perspectives and establish clear priorities. A new empowering framework for leadership development is required that emphasises facilitation of learning and personal and professional development. Magd et al. (2021), Fundin et al. (2021).

A learning culture should support leaders to develop a wider sociological lens with which to tackle strategic issues facing the organisation. There is clearly a duty to develop and sustain working cultures and procedures that are supportive of critically

reflective practice. Leaders with such critical reflective skills, build on their knowledge base by taking account of different perspectives, experiences and an awareness of wider ethical and strategic issues - that is they adopt a more holistic approach to inform their decision-making.

5. The integrated learning framework

This paper proposes a learning framework that addresses the interplay and interdependencies between all variables affecting the successful implementation of strategic quality management, recognising the interplay between the leader in terms of their experience, knowledge and skills, the socio-economic context and drive for change and growth whilst emphasising the need for stability, and the culture of the organisation and systems and process orientation – “the way things are done”.

An Integral Theory AQAL model developed by Wilber (1996) with its origins in psychology is growing in momentum and increasingly being used as a leadership development framework. Users of the AQAL framework agree that it helps learners develop a more holistic vision. AQAL, meaning “all quadrants, all levels, lines, states and types” reflects the complexity of factors involved in decision-making, both internally and externally, inside and outside the organisation, as well as personal and organisational culture influences. Figure 1 illustrates the quadrants. Recent studies report on its use in the health service for example, in order to explore more holistic medical interventions, recognising the complex and multi-faceted decision making required by leaders. Duffy (2020). The author has adapted this framework in the light of experience in delivering a more integrated approach to senior leaders to reflect a greater emphasis on the impact of socio-economic factors and global factors such as uncertainty and the growing emphasis on environmental issues.

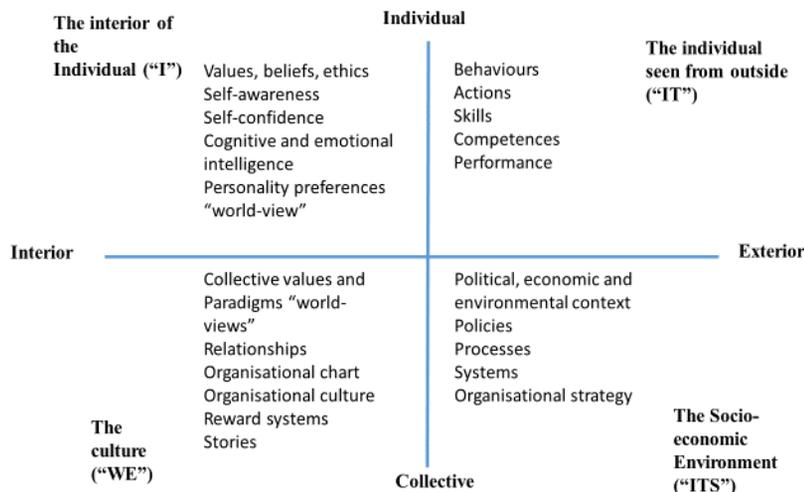


Figure 1. The AQAL 4 Quadrants Integral Theory Model with Socio-economic perspective (Dyason 2020) (adapted from Wilber K 1996)

The upper left-hand quadrant contains the individual's internal experiences and relates to the perception of the individual. (The "I"). The upper right-hand quadrant contains the factors influencing the perception of the individual from outside (the external view). Such perceptions will be influenced by actions, language, skills, competencies and body language. (The "It"). The lower left-hand quadrant represents the group consciousness and embodies the cultural context within which the individual is placed. (The "We"). The lower right-hand quadrant represents the socio-economic context within which the organisation is placed, called. (The "Its").

The principle of Wilber's theory is that the model demonstrates the inter-relatedness between each of the four aspects of the "human" dimension and, argues that it follows therefore, that an issue affecting one quadrant will impact upon the other three quadrants – thus forming an integral view. From an integral perspective transformation can only occur through mindset transformation.

The following research study illustrates how the AQAL model has been adapted and applied with leaders to create insight and understanding into contemporary strategic quality management perspectives and how this insight is developing the knowledge, skills and competencies of leaders in addressing the competitive challenges.

6. The research study methodology: the sample group

The study drew on a sample of 25 small to medium enterprises (SME's) operating within a range of sectors including commercial for-profit and not-for-profit-sectors and manufacturing and service industries. The sample also included organisations operating in the public sector, including the health

service, military and justice service. The organisations were selected on the basis that they wished to learn about "operational efficiency and quality management" in order to increase their resilience and short and long-term sustainability and ultimately contribute to their competitiveness and growth. The study took place over a two year period during which the research engaged with them in an action learning (experiential) methodology.

The author applied a blended learning approach, recognising the differing needs and learning styles of leaders and providing a breadth of learning opportunities including recorded talks, creating an interactive learning environment, on-line assessments and case studies. The classroom benefits of exchange of ideas and discussions were not lost with opportunities for learners to present their own ideas and generating debate and a discussion about the underpinning theoretical factors. The leaders shaped the learning content through a discussion of their own experiences and by looking ahead to the changing personal and organisational landscape: thus determining the knowledge and skills required. The overall intent of the programme was that it would contribute to creating a customer driven goals-oriented learning organisation, addressing leadership talent and increasing corporate business knowledge within four areas of competency embracing hard and soft skills such as leadership interpersonal skills, business operational skills and personal traits. It focused on outcomes and delivered tailored solutions. As can be seen in the integrated learning model at Figure 2 action-learning approaches ensured that new practices were acted upon and integrated into the organisation, evaluated and developed still further in line with the competitive priorities.



Figure 2. Applying an integrated learning model (AQAL) to the case studies (source: Dyason 2019)

7. Results of the study

7.1 Step One: A state of health check: current issues or challenges currently faced and participants’ knowledge or experience of strategic quality management

Leaders expressed competitive challenges as supply chain agility and resilience, particularly the ability to respond and adapt to fluctuations in customer demand, exacerbated by the resourcing issues within the supply chain, recognising that their organisations were only as agile as the chain itself. An issue identified by Scala and Lindsay (2021) in their research study into the supply chain in healthcare. Key findings show how specific resilience strategies such as agility, collaboration, flexibility and redundancy, contributed to supply chain resilience during the COVID-19 pandemic response.

Current awareness of strategic quality management within the organisations was explored. Many were aware of initiatives and methods such as “lean” and “six sigma”. Some had negative experiences of these

methods, either because they were introduced as a one-off intervention, or taught by educational providers and perceived to be a short-term project or initiative, for example, and the culture was not sufficiently supportive to bring about the required changes where there had been little opportunity to transfer the knowledge into the organisational context. Many cited “silo” barriers and found difficulty in relating the “theory” to their practical situations. As a result, many returned to day to day firefighting and the insight gained from the learning failed to be capitalised upon. There was a lack of process understanding and perspective particularly relating to value flow. Whilst “quality” was cited as the most important requirement of customers, this was generally not defined in terms of outcomes or measurements in place to identify any gaps in quality in the service or products. Many relied on complaints to identify areas for improvement rather than taking a proactive stance to continuous improvement. Whilst “speed” was an area of demand for customers, many acknowledged that the pursuit of speed had led to a deterioration in quality. To

summarise, “quality management” was generally perceived to be an activity with which to reduce errors in internal activities but was not seen as a strategic imperative through which to deliver customer value.

There were similarities in culture within the public sector organisations: namely a long-standing professional culture that had not hitherto been challenged by changes in the socio-economic environment, namely the public perception or “world-view”. These ingrained cultures and reward systems were typically based upon professional skills and experience and length of employment i.e. existing career and reward structures and decision-making was a slow and cumbersome process in a bureaucratic line management structure. Reliance on global supply chains and financial constraints were forcing them to adopt more competitive strategies and demanded more responsive, agile approaches to delivering their outcomes. Globalisation and growth in technology had created virtual organisations with geographical location and professional status of lesser importance than fast competent decision-making on the ground. The sense of purpose had become unclear, with the defence industry, for example, finding itself focusing on developing a new peace-keeping image and the justice sector, focusing on rehabilitation rather than punishment. The culture within the SME’s was generally characteristic of owner-driven and less-collaborative leadership styles with the knowledge and skills held within the management team. These leaders were entrepreneurial and experts in their own professional fields and cultures were not sufficiently developed to provide the resilience needed for growth. Whilst more “agile” in nature due mainly to their size and more informal structure, they were heavily dependent upon lengthy and complex supply chains to deliver their products or services and were experiencing vulnerability. Short termism and lack of strategic planning left them vulnerable to changing market and environmental conditions.

Significant quality management issues were exposed, as was the need to strengthen the link between quality management practices and sustainability – i.e. the triple bottom line of people, profit and integrating quality into the global supply chains. This changing context with the similarities in cultures described meant that any education intervention needed to transform the individual and collective mind-sets within the organisations as well as lead to a more competitive, dynamic organisation. A definition of “competence” moved from professional competence and embraced new skills, in the cases in question, these related to partnership and collaborative working across functional and organisational boundaries. A new set of quality management competences or attributes were necessary in all leaders and those in positions of influence including transparency and openness, and inclusivity in decision-making. Whilst the organisations in the sample were drawn from diverse sectors, there were clearly common competitive issues emerging.

7.2 Step Two: Defining a “burning issue” that was key to survival and growth

Each organisation identified a key strategic driving issue, in the defence industry it was to collaborate more closely with other industries to speed up and update the provision of resources and to revisit the logistical operations. The justice sector’s strategic imperative was to improve the outcome of court hearings for victims and witnesses and to create a more open decision-making process in order to improve confidence in the system. The SME cohort on the other hand, expressed concerns relating to sustainability and resilience including balancing capacity and demand and the ability to respond quickly to changes. They also identified supply chain vulnerabilities.

7.3 Step 3: The AQAL Model: Looking through the lens of the 4 quadrants.

Wilber's four quadrant multi-layered methodology was used to explore layer by layer the leadership competencies, skills and behaviour necessary using the inter-connectedness of the model to understand the impact of one issue upon another. The strategic quality management concepts and methodologies were then introduced at the appropriate time. Such methodologies included global supply chain management, advanced data analytical methods and artificial intelligence to simulate alternative strategies. Collaboration with industries outside the sectors in question was a particularly powerful means of generating new learning and understanding and resulting in using creativity and innovation to suitably adapt existing processes and design new processes.

The upper left quadrant: the interior of the individual – the “I”

In this quadrant the leaders were encouraged to reflect on their own leadership styles and learning needs. Their predominant style was directive in the SME sample. In more mature organisations such as the public sector, decision-making was formalised. Whilst leaders expressed a commitment to quality management, they did not understand how they could be more involved, viewing quality as an initiative or the role of the quality function in their organisations. They did not view it at a strategic level. They were largely “inward looking” and lacked an external focus on the competitive landscape. The concept of understanding customer value and how this was embedded in the flow of operational processes was a perspective that had not been considered. Through this reflection the leaders explored developing more transformational leadership styles as opposed to transactional with decentralised decision-making and more informal structures that resulted in a greater agility and adaptability. A greater appreciation of the

need for a long-term vision and their role in creating this through a growth strategy was assisted by understanding the interplay between the four quadrants: “individual” – interior, and exterior and “collective” interior and exterior. Learning from best practice and various leadership role models provided insight into alternative leadership styles and behaviours and an understanding of the impact of each.

Upper right quadrant: the “ITS”): the individual as seen from outside

The importance of advancing knowledge and practice in the wider perspective (i.e. externally as well as internally) was highlighted. Leaders created a matrix of customer and stakeholder relationships in order to segment and better understand the value expected. In this context Bradley and Barrett (2015) provide a simple model of internal drivers of transformation ensuring engagement of people and focusing on the discipline of customers. The model illustrates the connection between the leaders' voice and experience with those of stakeholder voices and experience and urges the leader to craft a strategy for growth that can be executed with the necessary competitive impact. It was necessary to ensure greater transparency in governance systems ensuring accountability and underpinned by sound business ethics: thus projecting new leadership behaviours. Within this strategic framework leaders determined what “success” meant to customers and stakeholders and to established how “success” would be measured. Here the leaders developed knowledge and capabilities in developing a readiness for transformational change through demonstrable behaviours garnering trust with customers and stakeholders and also at a societal level. This new perspective of a longer-term vision of “success” emphasised to leaders where they should focus effort.

The philosophy and principles of strategic quality management and insight into contemporary practices created a powerful driver with which to engage the mind-set of

the cohort of leaders. Of particular value was the drive to look beyond the organisation to explore in other, quite different industries, examples of highly effective practices that could be learned and applied to improve their own key processes. This necessitated the critical thinking necessary to challenge the way they were currently performed and whether new and innovative ideas could be adapted and applied to address specific strategic issues. In the defence industry the comparison was made with international space programmes in the use of technology and artificial intelligence. In the justice sector a comparison with air traffic control systems to understand more about the optimisation of resources and the smooth flow of case management. Skills in process improvement tools such as lean six sigma, failure mode and effect analysis were developed in tandem was addressing the competitive issue. The SME cohort gained insights from global enterprises in managing customer relationships for value and digital transformation strategies.

Lower left quadrant: The Collective “(WE)” the culture

Much has been written about the “learning organisation”: one such definition Vaill (1996) describes it as one that is “creative, unafraid of change, highly receptive to innovation and inclusive of diverse or unique ways of thinking”. In this culture senior leaders can admit mistakes and are able to change course when needed and believe that leadership resides in everyone, not just at the top.

The author’s previously published research studies into the prevailing culture in organisations supports the views of a wide range of commentators that, in order to achieve the transformational change required, many barriers needed to be overcome, including those resulting from hierarchical structures where decision-making and power was bureaucratic and slow to respond and adapt, where innovation and creativity was not supported and rules and procedures dominated. (Dyason, 2019). Quinn and

Thakor (2019) suggest that focusing on a higher purpose moves away from transactional oriented mindset towards a purposeful mindset. The culture encourages engagement and recognises value within the human capital of the organisation.

Lower right quadrant: The socio-economic environment – the “ITS”

Here the perspective was on the wider “eco-system” with the emphasis on negotiating and adapting alternative leadership styles to engage and adapt to feedback to changing needs and conditions. At the Global Peter Drucker Forum in 2019, Haier Group chairman, Zhang Ruimin, stated that “unless firms transform into ecosystems, they won’t survive.” A study by Erich Joachimsthaler, (2020) offers key insights into the ecosystem model of management suggesting that the key to future competitiveness is the leader’s ability to extract value from the wider socio-economic environment, negotiating partnerships and collaborations that support future direction quickly: creating a dynamic interactive eco-system. Given the global imperative to address environmental sustainability such eco-system approaches provide opportunities to re-design processes with a view to minimising negative ecological impact. The concept of the “circular economy” was particularly engaging and developed the concept of the reduction of waste using “lean” methodologies for example by generating ideas for re-use of resources working in partnership with the wider network. A circular economy is "a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible" that aims at tackling global challenges like climate change, biodiversity loss, waste, and pollution. Ellen Macarthur Foundation (2019).

“Future thinking” was identified as a key competence for leaders: the ability to anticipate and be change ready rather than reacting and firefighting as was the current

situation. Working collectively with human capital internally and externally in shaping the future direction of the organisation opened up some interesting avenues, including, for example, collaborations with technological and software developers gave SME's access to data and analytics relating to customer value which they had not previously utilised. Customer value flow maps were used to provide real-time data on progress with their product or service and for leaders to identify and remove potential bottlenecks. Opportunities presented by emerging technologies such as artificial intelligence were explored to communicate with customers and stakeholders and to mechanise some processes and activities. This enabled resources to be deployed elsewhere in adding value.

8. Lessons learned from the research study in relation to leadership development in strategic quality management

The value in engaging with leaders in the context of their environment in identifying their key competitive issue "burning issue" created a driver for transformation change. This context became the focus through which to align all facets of the organisation into a holistic system: the integrated learning framework underlining the interplay and holistic nature of strategic quality management. Leaders more readily appreciated the impact on demonstrable behaviours and the importance of supporting culture and aligning all internal and external systems in pursuit of a higher purpose. The issues were complex and in addressing them leaders were able to develop softer skills of critical problem solving informed by insight into leadership and good practices in other sectors. The study overcame the barriers associated with quality management hitherto identified as it had resulted in an awareness and understanding of the practical implementation of concepts such as customer

value, supply chain management and process analysis in the context of solving competitive issues. Of significance in terms of long-term sustainability it introduced leaders to more contemporary perspectives of strategic quality management such as understanding and optimising the eco-system, circular economy and wider societal impact including an understanding of the role of their organisations in shaping the society of the future in human terms (society wellbeing for example) as well as economic terms.

9. Lessons learned for educators

From the case studies above, four pointers emerge for those designing education or training to consider: firstly, align the learning to the outcomes that the learner and organisation seeks so that there is mutual benefit to both the individual learning and the organisation; secondly, create partnerships with universities, local employers, businesses globally and locally to provide opportunities for shared learning in public and private sectors; thirdly enhance investment in technology to facilitate access to learning material and information sources including interactive learning, action learning set activities, use of artificial intelligence tools that enable the learner to identify their development needs; and lastly, create opportunities for life-long learning, that is to generate partnerships between educators and learners that can be flexible with offerings at any stages of an individual's development or to meet changing organisational needs – offerings that are broad and holistic and driven by and tailored to specific needs rather than "topic" driven. Mentors drawn from outside the leaders' industry enabled the leaders to continue to develop their own competencies but also to gain insight into good practices from outside their sectors.

10. Next Steps and further research

The lessons learned and results from the research study are based on the first stage of an evaluation. Given the strategic nature of the concepts and methods applied, it is the intention of the researcher to revisit the organisations to make a further evaluation of outcomes in terms of impact on competitiveness in the medium to long-term. The next stage in the research is to develop a leadership and organisational “maturity” self-assessment tool to enable leaders to identify gaps in their own development needs in relation to the organisation’s strategic direction. They will then design an integrated growth plan, drawing on the principles and four quadrants of the integrated learning framework. Following this stage, the final evaluation will be to measure the impact of the growth plan on the competitive positioning of the organisations.

11. Conclusion

Clearly from current research and in the light of the above experience, the landscape for education is changing rapidly. Those who provide a training or education intervention need to design interventions to meet the holistic nature of individuals and businesses. Integral approaches to educating leaders in the field of strategic quality management offers a powerful vehicle through which specific strategic competitive issues can be addressed and through which the desired “continuous learning” culture of individuals and organisations can be achieved. As far as the author’s objective to use the integrated model to build the required leadership capabilities using strategic quality management principles, concepts and methodologies, this educational approach proved to provide the stimulus to actively engage in the methods and provided the insights, knowledge, tools and capabilities to continue to drive change through the lens of quality.

References:

- Aquilani, B., Silvestri, C., Ruggieri, A., & Gatti, C. (2017). A systematic literature review on total quality management critical success factors and the identification of new avenues of research. *The TQM Journal*. doi: 10.1108/TQM-01-2016-0003
- Boston Consulting Group & American Society for Quality (2019). *Quality takes more than technology 4.0*. BSG Publications. Retrieved from <https://www.bcg.com/publications/2019/quality-4.0-takes-more-than-technology>
- Bradley G., & Barrett A. (2015). *Humanising business transformation*, the North Hyland Company Inc. Retrieved from <https://www.northhighland.com/services/transformation-delivery>
- Chartered Quality Institute (2020). *The future of Quality Management*. Retrieved from <https://www.quality.org/knowledge/future-quality-management>
- Chartered Quality Institute (2019). *The Future of Work*, a CQI Quality Futures Report (2020) The Chartered Quality Institute retrieved from <https://www.quality.org/future-of-work>
- Deloitte (2019) *How Leaders are Navigating the Fourth Industrial Revolution*. Retrieved from <https://www2.deloitte.com/uk/en/pages/consulting/articles/future-of-work.html>
- Deming. W. E. (1986). *Out of the Crisis*. Cambridge publications
- Duffy J. D. (2020). A primer on integral theory: its application to mental health care. *Health and Medicine*, 9, 1-12 <https://doi.org/10.1177/2164956120952733>

- Dyason M. (2019). The Future of Quality: Sustainability and Competitiveness. *Proceedings of Croatian Quality Managers Society, 20th International Symposium on Quality*.
- Ellen Macarthur Foundation (2019). *The Circular Economy*. Retrieved from Ellen Macarthur Foundation website <https://ellenmacarthurfoundation.org/>
- Fundin, A., Lilja, J., Lagrosen, Y., & Bergquist, B. (2020). Quality 2030: quality management for the future. *Total Quality Management & Business Excellence*, 1-17. doi: 10.1080/14783363.2020.1863778
- Joachimsthaler, E., (2020) *The Interaction Field: The Revolutionary New Way to Create Shared Value for Businesses, Customers, and Society*. PublicAffairs.
- Khurniawan, A. W., Sailah, I., Muljono, P., Indriyanto, B., & Maarif, M. S. (2020). An Analysis of Implementing Total Quality Management in Education: Succes and Challenging Factors. *International Journal of Learning and Development*, 10(2), 44-59. doi: <https://doi.org/10.5296/ijld.v10i2.17270>
- Kiselačková, D., Gallo, P., Čabinová, V., & Onuferová, E. (2020). Total Quality Management as managerial tool of competitiveness in enterprises worldwide. *Polish journal of management studies*, 21, 195-209.
- Kolb D. (1984) *Experiential learning: experience as the source of learning and development*. Prentice-Hall, NJ.
- Kulenovic, M., Folta, M., & Veselinović, L. (2021). The Analysis of Total Quality Management Critical Success Factors. *Quality Innovation Prosperity*, 25(1), 88-102. <https://doi.org/10.12776/qip.v25i1.1514>
- Magd, H., Negi, S., & Ansari, M. S. A. (2021). *Effective TQM Implementation in the Service Industry: A Proposed Framework*. *Quality Innovation Prosperity*, 25(2), 95-129. <https://doi.org/10.12776/qip.v25i2.1594>
- Nurtanto, M. (2002). Problem-based learning (PBL) in Industry 4.0. *Universal Journal of Educational Research* 7(11) 2487-2494. doi: 10.13189/ujer.2019.071128
- Pearson (2019). *Global Learner Survey*. Retrieved from <https://www.pearson.com>
- Pearson (2020). *Education and learning for the Modern World*. Retrieved from <https://plc.pearson.com/sites/pearson-corp/files/footer-image/pearson-global-learners-survey-2020.pdf>
- Quinn R. E., & Thakor, A. V. (2019). *The Economics of Higher Purpose: Eight counterintuitive steps for creating a purpose-driven organisation*. Berret-Koehler.
- Rae, D., & Carswell M., (2020). Using a life-story approach in researching entrepreneurial learning: the development of a conceptual model and its implications in the design of learning experiences. *Education + Training*, 42(4), 220-228. doi:10.1108/00400910010373660
- Scala, B., & Lindsay, C. F. (2021). Supply Chain Resilience during Pandemic Disruption: Evidence from Healthcare. *Supply Chain Management*, 26(6), 672-688. <https://doi.org/10.1108/SCM-09-2020-0434>
- Schwab K. (2016). The 4th Industrial Revolution, World Economic Forum. Retrieved from <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>
- Shane S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1) 217-26. <https://doi.org/10.5465/amr.2000.2791611>
- Thompson, N., & Pascal, J. (2015). *Developing critically reflective practice*. Routledge.

- United Nations Sustainable Development Goals *Transforming our world: The 2030 agenda for sustainable development*. Retrieved from <https://sdgs.un.org/2030agenda>
- Vaill, P. (1996) *Learning as a Way of Being: Strategies for Survival in a World of Permanent White Water*, Jossey-Bass, San Francisco CA
- Wamsler, C. (2019). *Education for Sustainability*. Emerald Publishing Ltd.
- Wilber, K. (1996). *A brief history of Everything*. Boston, Shambhala.
- World Economic Forum. *How countries are performing on the road to recovery*. WEF 2020.
- Zairi, M. (2019). *Quality 4.0 Leading into the future through excellence*. European Centre for Best Practice Management.

Marilyn Dyason

University of Portsmouth,
School of Business and Law
Portsmouth
United Kingdom
Marilyn.dyason@port.ac.uk
ORCID 0000-0002-2840-4520
