

## **SUSTAINABLE COMPETITIVENESS THROUGH QUALITY TRANSFORMATION: A LONGITUDINAL ANALYSIS OF QUALITY AWARD WINNERS AND A PROPOSED FRAMEWORK**

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### **ABSTRACT**

*Quality management is a dynamic philosophy that underlines the organisational adaptation and proactive transformation that enables firms to reap real benefits from market opportunities. The faster the market changes, the quicker the transformation that is required for sustaining the firm's internal capabilities and its external competitiveness. Under a competitive pressure, a firm will need to learn faster and lead in best practice for operational excellence and continuously finding ways to shield its advantage from imitation.*

*In the search for determinants for sustainability, this article analyses best practices adopted by quality award-winning organisations and synthesises a collection of critical factors that could assist organisations in improving their performance. From a longitudinal learning on how these leading organisations led themselves into a new sustaining paradigm, the article makes explicit the factors that were considered of paramount importance to sustainability. These success factors become a basis for others to leapfrog ahead into a new performance orbit. A proposed model for sustaining competitiveness has been developed from the creative learning of best practices of leading organisations. This proposed framework presents companies with an opportunity to emulate successful implementation of TQ-based initiatives, and to embed these pioneering concepts, particularly in the context of emerging countries.*

### **INTRODUCTION**

By the end of the last century, the world of quality management had reached the verge of assimilation into integrated management for at least two main reasons. First, the proliferation of, and need for meeting specific management standards within the umbrella of total quality, such as quality assurance (ISO9000), environment (ISO 14000), health and safety (BS8800), and social accountability (SA 8000) (Karapetrovic, 2001). Second, more and more people have come to realise that system improvement has to begin with quality improvement, without which optimisation will be superficial (Kondo, 2001). These adsorptions of sub-systems into the total quality concept have expanded the scope of total quality, making quality improvement acceptable to multiple organisational stockholders such as customers, employees, and money investors (Kondo, 2001).

In parallel, a growing research in related basic disciplines, such as marketing, human resources, and strategic management, indicated the viability of integration between TQM and other functions (Grant et al., 1993; Dean and Bowen, 1994; Webster, 1994; Gummesson, 1998). However, it has not been certain that quality philosophy, which include process-oriented, customer-oriented, and people-oriented facets has taken precedence over the other principles in influencing the core business function and corporate success. The Japanese quality revolution is clear evidence of this dominance of quality over productivity and cost (Kondo, 2001). In recent decades also, specific ideas of integration were put forward, such as marketing and quality management (e.g. Gummesson, 1998; Mohr-Jackson, 1998; Webster, 1994; Day, 1994; Idris, 2000; Bathie and Sarkar, 2001), human resource and quality management (Lawler, 2000; Chandler and McEvoy, 2000; Carter et al., 2000), innovation and quality management (Nowak, 1997; Dahlgaard and Dahlgaard, 1999), and strategic management and quality management (Hunt, 1993; Witcher and Butterworth, 1999).

Many of these ideas, after a decade of learning from experience, have subsequently been formulated into advanced excellence models such as revised MBNQA (2000), and EFQA (2000) and ISO 9000 (2000). Empirically validated, these models have been successfully adopted by more than 41 winners in USA since 1988, and 250,000 ISO 9000 companies world-wide (Moorcroft, 2001), until the end of the past century. Those firms, which obtained more than 75% of the points are considered as excellent.

In this article, we argue that organisational excellence does not happen by accident, and making quality happen in your organisation is central to long-term corporate planning and sustainable outcome. We then track how this planning has been implemented by award winners, by studying the best practices of their quality transformation as they move from each era of development towards excellence.

## **MANY WAYS TO EXCELLENCE**

The essence of Hoshin Kanri, the Japanese way is to align the top management goal with operational matters (Akao, 1991; Witcher, 2001). Witcher (2001) goes further to claim that a real Hoshin Kanri is a form of strategic management by PDCA. If the idea that quality orientation is central to corporate philosophy is accepted, companies have to concurrently pursue three improvement aspects: process and design optimisation, customer orientation, and cultural transformation. These imperatives are core issues facing environmentally-adapting organisations in this new economic world. Because of multiple dimensions of measures that confront the managers in making quality transformation happen, having skills in managing synergies of multidisciplinary initiatives in both workplace and market space is the source of advantage, because it is a rare skill to have. These trends of thinking or discoveries pointed a further need for integrating between

marketing and total quality (Bathie and Sarka, 2001), and between strategic management and total quality.

Sustainability in the past was characterised by different orientation ranges, from product, service, customer, and market, beginning around 1960 to the 1990s (McDonald et al., 2001). In the new millennium, sustainability is only left derivable from synergies of system effectiveness and system competitiveness from integrated organisational sub-system. Because the nature and speed of transformation required has been increased in the age of global information, the skill in transformation is the route to sustainable competitiveness (Owen et al., 2001). In other words, culture is what an organisation has to manage, while sustainability of results is the consequence of a transformational-sensitive culture.

Unlike managing the value chain, which emphasises specialist activities such as procurement, marketing, and so on, customer value is a cross-functional product of these activities (Webster, 1994; Doyle, 2000). In the last decade, firms were encouraged to adopt market orientation in addition to quality management in creating superior customer value. The last decade was the era of market-based quality orientation (see Day, 1990, 1998; Kohli and Jaworski, 1990; Narver and Slater, 1990; Webster 1994; Idris, 2000). The first challenge in managing this integration is how to merge process improvement focus and functional specialisation focus, so that firms are able to retain or improve their core competencies while optimising capabilities (functional abilities) to attain an overall effectiveness in the eye of the firms' customers.

Being market-oriented entails transforming the entire organisational paradigm to cope with market changes. In responding to this, Day (1998) and others for example, call for turning customer satisfaction to customer retention and loyalty (Simms, 2000; Wayland and Cole, 1997). Other related processes must be reoriented around the concept of value creation, such as replacing financial-led business into marketing philosophy, and balancing functional hierarchy with process emphasis (Webster, 1988, 1994; Simms, 2000). All these changes will provide an organisation with a cushion against an economic downturn as well as capabilities to reap market benefits during economic growth. Integrated management primarily aims to build sustainable capabilities.

The advantage derived from functional maximisation would fast decompose, because the frontier in operational excellence in the knowledge economy is fragile (Porter, 1996). That does not mean operational excellence [OE] is less valuable than strategic positioning as a key source for difficult-to-imitate advantage. What we argue is that operational excellence should be the beginning to strategic positioning, because positional image or reputation, though a prime source of market advantage (Hall, 1992), is hard to establish, but once recognised and entrenched, strategic positioning becomes a true competitive strategy. Achieving this sequence is the TQM content approach to sustainability (Idris, 2000), where a firm derives sustainable competitiveness by positioning a quality-based market

advantage. This resembles what Zairi (1996) calls the stage of 'real competitiveness'. Although Porter (1996) insisted that emphasising strategic positing is the real strategy because, as he argued, an OE strategy like benchmarking makes strategy converge with no clear winners, successful strategies are however, multi-pronged. Long before this, Ansoff (1968) advocated synergy as a component of corporate strategy. Others supported the idea that pursuing multiple fronts including quality (Schonberger, 1996), to create synergies from multiple advantages, increase tacit components of those strategic assets, thus making advantages hard for competitors to copy (Teece, 1998).

Excellence companies such as winners of the Baldrige award are, in their own way, market leaders, and they pursued multiple annual policies. Research has shown that they outperformed the Standard & Poor 500 by 4.4 to 1 (NIST, 2001). Therefore, neither internal quality processes nor operational excellence and external orientation nor market focus could any longer appear in a separate management agenda (Idris, 2000). Moreover, sustainable advantage is a consequence of breakthrough learning, which can only exist and flourish in an organisation that has culture for continuous improvement brought about by consistently quality-driven firms (McDonald and Zairi, 2001).

Until recently, it seem a consensus on integration was for an integrated system based on PDCA, but spanning all activities, such as finance, marketing, operations, and personnel (Lopez-Fresno and Fernandez-Gonzalez, 2001). Subsequent addition should accept whatever future subsystem is to be developed (Wilkinson and Dale, 1999). As a starting point, frontiers of effectiveness and competitiveness are available from best practice champions, after which innovative followers could emulate and leapfrog themselves to the new quantum of performance. Being at the frontier now is the ticket for sustainability, though it does not guarantee it will succeed thereafter. In a pragmatic approach, the effort is to acquire skills in capturing and transferring best practices (Jarrar and Zairi, 2000). Next, to maintain a culture that enables those practices to be turned into competitive advantage that can endure competitive pressure. We shall see from best practice champions how they nurture and sustain the performance-related behaviour over the years with TQM experience. To capture the essence of transformation, those factors are presented in the format of the following tables, separating the elements that have been covered and how successes were achieved. Tables 1 to 3 present quality strategies adopted by European Quality Award winners, and each table represents industrial/business products, consumer service, and consumer products companies respectively. Subsequently, in Table 4, we isolate the transformed paradigms that span the four decades of total quality implementation.

**LESSON FROM EUROPEAN QUALITY AWARD WINNERS**

TABLE 1  
BEST PRACTICE TRANSFORMATION IN RANK XEROX: 1992 EFQA WINNER

Activity/year	What they achieved	How they did it
1960s–1970s Product orientation	Xerox industry leader in copier market.	Growth by improved new products.
1970s–1980s Product and service orientation	Japanese competition caused declining market share.	Early benchmarking studies showed firm's disadvantages in terms of cost and product quality. Beginning of quality initiatives.
1980s–1990s Product, service, and customer orientation	Retained only 20% market share in Europe.	Focus on improving product quality and cost.  Invested in employee quality training.  Erosion of market share slowed, customer requirements accurately identified and translated into design specifications; production cost halved; time to market cut by a third; inventory turnover doubled; and customer satisfaction increased by 20%.
1990s–2000s Customer orientation and market orientation	Incorporated improvement in all aspects of operations.  Realised that customer satisfaction is the only route to sustained business success.	Intensified usage of product technologies and computer-based information technologies.  Customer satisfaction was top priority in all operations.  Responded to all customer requirements.  Launched new products for complete market range; laser printings, centralised electronic printing, high volume colour printing, and system reprographics.  Optimised design for compatibility and integrated customer needs for work processes and IT investment.  Repositioned Xerox as document company—supplier of choice.
Future	Source of Competitiveness	Xerox has identified the way forward by successfully applying quality principles, tools and processes in pursuit of customer satisfaction as the ticket to competitiveness. The sustainability of competitiveness will be retained by combining quality with leadership in design and technology, time to market, productivity, and superior marketing strategies, all driven by changing needs of the customer. This integration is based on leadership through quality with primacy of customer satisfaction.

TABLE 2  
BEST PRACTICES TRANSFORMATION IN ROYAL MAIL: 1995 WINNER OF EFQA

Activity/Year	What they achieved	How they did it
1960s–1970s Product orientation in service sector	Operated in communication market for transfer of information, funds and personal messages.  1969, ceased to be a Government department and became public corporation.	
1970s–1980s Service orientation	Remained competing with fax, telephone, television and press advertising, interactive electronic services, document exchange, courier companies, electronic data exchange, and electronic mail.	Performance improved despite increasing competition, recession, and customer expectation.
1980s–1990s Customer orientation	Competition increased. Separated from British Telecom in 1981.  Recognised need for change.  Created vision, values and position statement for the company.  Broken up into four separate businesses.	Trained 85 quality support managers. Introduced employee opinion survey and customer satisfaction index. Measured customer service experience. Measured management behaviour feedback.  Profitability increased from £94 m in 1988/98 to £296 m in 1993/94.
1990s–2000s Market orientation	In 92/93 control 15% share of £21.5 billion market.	Benchmarked total quality process. Created continuous improvement culture using team-based customer first workshop for all levels.  Frontline involvement began in 1992. Business development rationalised business unit from 70 to 19 and reduced headquarters by 90%. Adopted European Excellence model in the same year as internal self-assessment. Introduced process management; improved business process by defining key business processes, prioritised them, established measures and goals, and improve them systematically.

TABLE 3  
BEST PRACTICE TRANSFORMATION IN ELIDA FABERGE: 1997 EQA WINNER

Activity/year	What they achieved	How it was done
Largest beauty and health products manufacturer in UK	Marketed over 30 branded products.	Top five customers—Boots, Superdrug, Sainsbury's, Tesco and Asda accounted for 53% of sales. The next top five accounted for 18% sales.
Mission	To create, produce and sell brands which help people care for their personal health, confidence and appearance, and so enhance their sense of wellbeing.	To delight customers with every product To do it better than competitors.
1960s–1970s Product orientation	Enjoyed good growth and profits with some inherent weakness, such as erratic customer service, poor cross-functional communication, and frequent failures in bringing new products to market.	Began cultural shift to overcome weaknesses.
1970s–1980s Service orientation	Continued with similar culture.	Continue with the same culture.
1980s–1990s Customer orientation	Formal quality initiatives started in 1989.	Began top-down training and bottom-up training involve all.
1990s–2000s Market orientation	Increased export from 18% of factory outputs with 3 customers in 1992, to 40% with 24 customers in 1997.	Identified that continuous improvement is the only long-term basis for sustained competitive advantage and market-place success.  Harnessed everyone's commitment and participation in business improvement through the disciplined application of total quality.  Empowered employees and shared responsibility for personal development.
Future competitiveness	Sustained profitable growth was the company's long-term aim. This was achieved on volume rather than price growth. Consistent average business growth of 7% has been achieved since 1990.  Process improvement was the key strategy to sustainable performance.	Comprehensive performance measures adopted include financial, operational efficiency, and innovation. Customer satisfaction survey in 1996 indicated that Elida Faberge maintained its best-performing company status since 1992.  Process management approach adopted 5 steps analysis: define input and output for key process, define essential activities to effect transformation, analyse which activities are central to adding value, identify propositions that improve competitive edge, review improvement proposal against a '7S' framework. Process improvement measures applied in evaluating each process.

TABLE 4  
TRANSFORMED PARADIGMS

Values/Mental model	Past /present	Present/future
Strategy	Cost and quality are mutually exclusive.	Cost and quality are on the same side of equation for creating customer value.
Core business philosophy	Core philosophy could be adopted in sequence.	Core philosophies could be concurrently applied when resource permits and synergy is high.
Leadership	Leaders delegate quality responsibility to lower managers.	Leaders take personal role in quality management.
Policy and strategy	Quality plan exists only at operational level.	Quality plan is integrated into corporate strategic plan and operational plan at various levels.
Education and training	Limited training in quality at operational level.	Intellectual capital as source of advantage.
Process management	Focuses on internal business process, and seldom takes into account the role of customers as co-producers of the outputs.	Use multiple techniques for process improvement and encompass business and supporting processes.
Human resource management	Personnel management was a separate functional silo from total quality.	Human resource management an integral component of total quality initiatives.
Customer focus	Customers were passive buyers.	Customers include processes along with the value delivery.
Improvement methodology	Single emphasis on either continuous improvement or radical innovation.	Continuous improvement and radical innovation run in parallel and are not mutually exclusive.

## APPROACHES TO SUSTAINABLE COMPETITIVENESS

TQM is the most popular approach to improving performance available (Davis, 1997) by using integrated efforts to change every facet of organisational culture. The Japanese model of applying quality principles has long been a role model for the western competitors. The Japanese model of MNEs, which relied on central planning, market share emphasis rather than short-term profit, and cross-ownership between firms and banks, seems to rhyme well with the concept of operational efficiency and sustainable competitiveness (Macharzina, 2000). These fundamentals that shape crony-capitalism, which were the rules for Japanese global dominance, and to some extent the Asian rising tigers, have in recent years surrendered to the American market-oriented approaches to competitiveness. Undoubtedly, at enterprise level, the Japanese way of conceptualising and implementing quality approaches has successfully shaped an effective managerial style much associated with organisational success, but operational success at the enterprise or industry level is only a pre-condition to sustainability. As long as the economic fundamentals and market changes happen within the boundaries that a firm or industry can



cope with, organisational effectiveness has a chance to be converted into competitiveness. The literature has established that TQM could lead to competitiveness if quality practices were intensively implemented (Ahire, 1996), and with subsequent improvement could be gained when firms benchmarked advanced TQM companies in learning best practices (Dale, 1996). Others suggested that mature TQM companies gain greater benefits from their quality programmes' implementation (Ahire, 1996; Agus and Abdullah, 2000). Also, a comprehensive rather than a piece-meal approach brings greater success (Flynn et al., 1995; Ahire, 1996), particularly when the major concerns are directed at the contents elements which were tailored for specific sustainable performance factors within a firm (Reed et al., 1996; Idris, 2000). Despite these claims, few had assessed at what levels of quality conditions this relationship exists (Ismail and Hashmi, 1999). A longitudinal analysis is needed to learn from quality award winners on how critical factors were selected and nurtured in a quality environment. A snap-shop design alone would fail to capture success conditions holistically.

Market changes demands firms to learn continuously about internal and external variables that have strategic links to its success. Many have called for building a learning culture to facilitate a transformation (Senge, 1995). Literature supports that implementing total elements could enhance achievement of total quality, but some are less dealt with by quality researchers. Long ago, world-class companies improved quality on all fronts (Schonberger, 1986), irrespective of whether the product was targeted at the mass market or niche segments. Implementing comprehensive quality initiatives is a major problem for most firms on the journey to TQM, because disseminating multiple values among employees and customers is costly. In the organisational world of competing resources, a selected single core value approach is often recommended. However, this has to be guided by critical factor analysis. Subsequent empirical studies identified critical success factors (CSF) related to effective TQM implementation.

Researchers have derived CSF (Flynn et al., 1995; Ahire et al., 1996; Black and Porter, 1996; Idris, 2000) spreading from manufacturing (Ahire, 1996; Ahire et al., 1996; Saraph et al., 1989; Agus and Abdullah, 2000), small and medium-scale industries (Yusof and Aspinwall, 1999), higher education (Kanji, et al., 1999), health care (Kunst and Lemmink, 2000), developing countries (Thiagarajan et al., 2001; Baidoun, 2001), and non-Anglo-American context (Chan et al., 2000). Collectively, these factors include all practices related to management commitment, education and training, feedback measurement, total employee involvement, empowerment, teamwork, technological factors, customer satisfaction measurement, benchmarking, quality information and analysis, strategic quality planning, and supplier management. These main elements representing the quality management models were further broken-down into their categories of quality initiatives, which can be self-assessed such as in the MBQNA and European Excellence Models. On an elemental basis, critical factors could be established by reviewing cases of quality award winners (McDonald et al., 2001).

## FROM EFFECTIVENESS TO COMPETITIVENESS

Organisations could be classified according to the level of quality management practices. The varied intensity and diversity of practices made phases of a transformational continuum (Dale, 1996). It has been suggested that practices at a higher point on the continuum increase the chances for greater competitiveness (MacDonald, 1993; Chandra, 1993; Nadkarni, 1995; Ahire, 1996; Miyake et al., 1996), thus testifying to TQM as an endless journey to excellence. For example, performance of Irish companies improved within four years of implementing ISO 9000, but started to decline when no subsequent TQM initiatives followed (Ismail and Hashmi, 1999).

Sustainable competitiveness is a relatively new concept within the TQM lexicon, with no agreed definition. Conceptually, TQM creates transitional states of excellence that deliver effective performance and, in turn, sustainable competitiveness. This implies that sustainable TQM precedes sustainable competitiveness. The parallel term, business excellence, emphasises the aspect of competitiveness enhancement (Savolainen, 1997; 2000), although the use of excellence to replace quality in EFQA was heavily criticised by Dale et al. (2000), fearing the shift might affirm TQM as a fad. In terms of matrices, achieving 750 points or higher in EFQM assessment indicates business excellence (Dahlgard et al., 1998). Excellence should encompass 4P aspects: people, partnership, process, and product (Dahlgard et al., 1999).

TQM sustainability therefore related to first, effectiveness of TQM implementation in terms of its critical factors, and how these factors generate organisational competitiveness or sustainable performance (see Figure 1). Empirically, it has been shown that there are different explanatory variables for progress in TQM implementation and for business performance (Idris, 2000; Kunst and Lemmink, 2000). Consistent with Flynn et al. (1995), Reed et al. (1996), Idris (2000), the critical factors that create competitiveness are TQM contents, and other process elements provide structural support for sustainable performance (see Figure 2). In other words, sustainability is a function of interaction and synergy between effective implementation of performance-related factors and the number of critical factors emphasised by a firm from the customer's point of view.

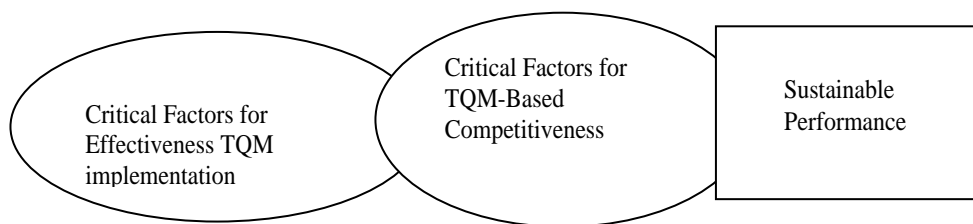


Figure 1. Critical factors for TQM implementation and competitiveness

When no match exists between the improvement goals and the company's strategic goals, no competitive advantage will result from the improvement initiative (Fuchs, 1993). The strategic quality planning process is ineffective without integrating quality and customer satisfaction issues into a strategic and operational plan. A quality plan, just like a marketing plan, is an extension of a corporate plan. Such a planning process should take into account the requirements of all stakeholders and environmental issues (Zairi, 1999b). Strategic-fit is crucial for effectiveness of a strategy. Changes in the environment that shift the industry landscape and thus competitive forces will often make the improvement initiatives less effective, which may subsequently result in reduced commitment to those initiatives. Ultimately, this will drag upon the effectiveness of CSF, and therefore affect the firm's ability to sustain total quality implementation (see Figure 2).

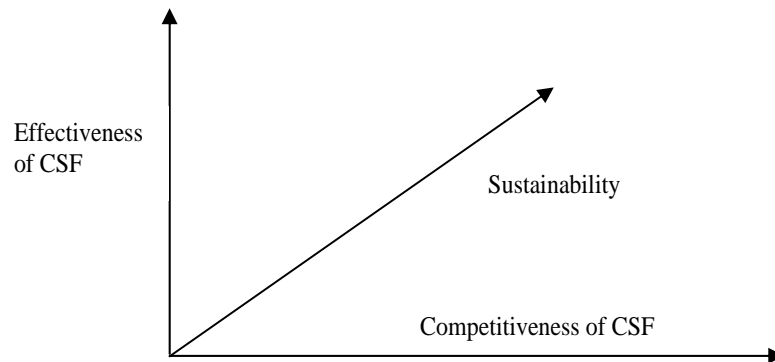


Figure 2. Sustainability orbit of TQM

The world has witnessed the rise and fall of strategic movements such as strategic planning (Webster, 1988), BCG's experience-curve-effect, incremental improvement, downsizing and restructuring (Merrifield and Mitchell, 2000), and perhaps reengineering. 'Traditional TQM' also is no exception. Those contemporary emphases, once sufficient to yield short-term competitiveness, are now no longer capable to shield that advantage from competitive pressure in the e-knowledge world. What is really important is the holistic review and continuous innovation of strategy to match a firm's resources to the requirements of the future-oriented marketplace (Day, 1994; Hamel and Prahalad, 1994), which involves making tough choices about what you will do and what you will not (Porter, 1999).

Holistic TQM implementation means achieving balance between conformance to customer satisfaction and internal process improvement, without losing flexibility and creativity in business improvement. This balancing act gives rise to the concept of organisational agility: maximum flexibility for mass customisation yet preserving organisational competencies. A competency as defined by Day (1994), is a firm's capabilities that support multiple businesses, where each SBU learns quickly and effectively from each other mutually creating a superior competitive position. The ability of a firm to leverage quality

initiatives and knowledge to create organisational agility enables firms to customise its mass customising strategies (Zairi, 2001).

Agility is a product of a mixture between process focus, functional focus, and customer focus. It is imperative that firms keep close to customers, and partners with customers, to track customers' value shifts. This customer intimacy allows quick response to customer needs in a differentiated and co-ordinated way. Good strategy also differentiates customers in terms of the product they prefer, and the way they wish to acquire and experience the products. Best practice in customer-relationship management permits comparative evaluation of quality initiatives in acquiring, keeping, and profiting from valued customers. Customer-driven quality initiatives are crucial to sustain effective TQM implementation, and achieve superior outcomes.

Sustainability of a firm's performance through quality orientation is therefore about maintaining competencies and capabilities to remove negative quality gaps quickly and create positive quality to attract customers. In the words of Porter (1999), "Companies must build advantages rather than just eliminate disadvantages." As Kondo (2001) insisted that must-have quality could only avoid dissatisfied customers, but that attractive quality could amaze customers.

Others suggested that firms optimise knowledge management (Wayland and Cole, 1997) and make use of seminal works and new research findings (Marrifield and Mitchel, 2000). This means linking innovation as an outcome of quality initiatives such as utilising innovation to drive corporate growth, industry growth, generating percentage of income stream from new products, and planning "phased-innovation". The company also uses a global benchmarking study to set up path-breaking innovation.

Many authors placed emphasis on creating superior skills and retaining employees (Hall, 1992; Pfeffer, 1994; Lawler, 2000) as means to sustain market leadership. A firm should optimise work-related employee learning by sharing internal quality information and external customer information. Lawler (2000) suggested that firms move from managing by control to managing by incentives, when organisational conditions foster 'excellence employees'. Firms should then tie incentives to employee contributions towards value creation. It is imperative that firms search for best practice in knowledge and information-sharing within and intra-firms to strengthen the firm's skill-based competencies. Luthans and Sommer (2000) urge that firms utilise high-performance work practices (HPWP) to increase competitiveness by reducing employee turnover and increasing organisational effectiveness.

Others suggested that culture and climate affect the managerial style, and how employees interact in their work place. This important human side of the enterprise has been described as a discipline of psychology in the Deming (1994) doctrine of profound knowledge, or the soft element of quality management (Oakland and Porter, 1994). A

growing research within the TQM field calls for greater attention to the antecedents of organisational culture if quality initiatives are to be sustained. For example, Tata et al. (1999) found that flexibility-oriented organic structures are more conducive to TQM effectiveness than control-oriented mechanistic structures. There are some calls for making national culture a new tool for business excellence (Hammond, 2000), by incorporating national values in corporate principles and practices. Irrespective of influencing national culture, to trigger sustainability, a firm's internal climate should support the key success factors to performance.

Organisation in search of sustainability should synergise efforts for internal quality initiatives and market-based initiatives (Idris, 2000). Initial research pointed to the emphasis on optimising TQM contents: reliability, processes, design, and market advantage, while simultaneously striving to be overall market-oriented. Over-relying on specific components of market-oriented strategy, such as customer-oriented or competitor oriented alone, could prove disastrous (Narver and Slater, 1990; Slater and Narver, 1993). Consistent with the advice of Porter (1999), great strategies are based on lasting value propositions not transient value shifts. However, specific quality-performance link is company-specific, therefore no universal strategy for different market conditions should exist. Such circumstances make imperative that firms align their corporate goals with quality strategies to speed up business growth. Subsequently, they should converge to synergism the conditions for growth into visible links of strategy-performance routes to sustainability.

There have been numerous discussions on how performance ought to be measured. In measuring factors that imply causality, what gets measured, as independent variables, should be the closest links to its immediate consequences without the presence of mediating variables. As regards measuring competitiveness, strategic marketing literature suggests that competitive advantage is generally derived from a firm's core competencies (Day, 1990, 1994). If these competencies could be shielded from competitions and made to yield positive performance, such strategy is said to be a creator of sustainable performance (William, 1992; Teece, 1998). Logically, firms should be in the core competence business, and continuously strengthening those competencies from imitation (Teece, 1998).

Based on the literature, a model for measuring quality orientation and firms' competitiveness is proposed. The important stages of the proposed model for sustainability are goal setting, selecting orientation, transforming critical factors, and measuring competitiveness, similar to the PDCA approach to continuous improvement (Figure 3). This model could be operationalised by incorporating best practice stocks in terms of quality orientations and critical factors that are exemplified by award-winning organisations, because these companies have adopted self-assessment for many years and gained sustainable performance in their respective markets. In this model, all quality

initiatives must be geared towards optimising the process of converting critical factors into sustainable advantage.

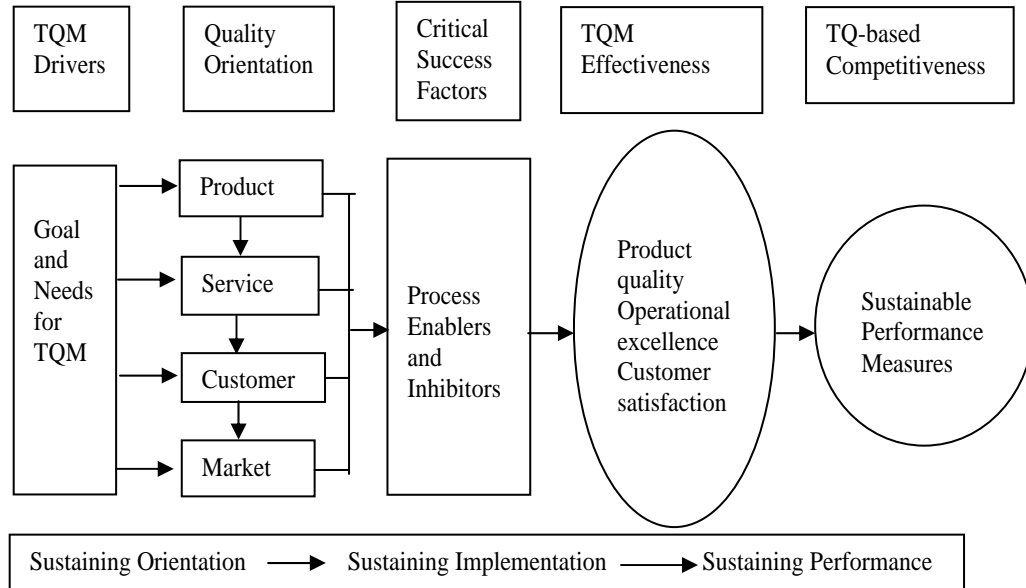


Figure 3. Proposed model for sustainable competitiveness

### CONCLUSION

The issue of sustainable competitiveness is not a simple concept, but even more difficult to operationalise. No wonder excellence models regard only 75% score as the qualifying ticket for sustainable performance. The paper raises additional important points that integrated management centred on total quality is a fresh idea to sustainable competitiveness. Synergies derived for multiple optimisation of sub-systems promise enduring sources of advantage. One way to track this is adopting best practices of award winners along the evolutionary model of quality transformation from product, service, customer and market to create effectiveness factors and competitive advantage. Using the proposed model, real factors could be identified for a specific market or economy or national culture, hence how quality transformation could be related to sustainable competitiveness. Managing these transformations is the new scorecard for organisations in this millenium.

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