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Implementing a quality management framework in a higher education organisation

A case study

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Abstract

Purpose – This paper aims to report and analyse the lessons learned from a case study on the implementation of a quality management system within an IT Division in a higher education (HE) organisation.

Design/methodology/approach – The paper is based on a review of the relevant literatures and the use of primary sources such as document analysis, participant observation and interviews to develop a case study that describes and evaluates the implementation process.

Findings – The case study identifies four factors central to the effective implementation of the quality management system within a Division of a HE institution: senior leadership and sponsorship; stakeholder engagement; the management of culture change; and implementing quality processes.

Practical implications – The case study reveals that the implementation of quality management systems requires sustained effort, continuous leadership, and the long term commitment of resources and systematic auditing of performance and is best done on an incremental basis.

Originality/value – The paper is based on a single organisation case study, and utilises a variety of data collection methods to generate findings. The study findings illustrate that HE institutions may achieve greater success in implementing quality management systems if they focus on a particular division rather than an organisation-wide approach.

Keywords Quality management, Higher education, Continuous improvement, Ireland, Organizational structures

Paper type Case study

Introduction

Quality management systems are increasingly common in many organisations (Psychogios and Priporas, 2007; Brookes and Becket, 2008). In order to enhance competitiveness and effectiveness, organisations are seeking an increased level of effectiveness across functions and processes. Quality management systems are considered an appropriate intervention to realise those objectives (Baidoun, 2003). A variety of quality management frameworks have been put forward; however the most widely used example is the ISO9000 series. This is founded on eight quality management principles: customer focus, leadership, involvement of people, process management, system approach to management, continuous improvement, factual approach to decision making and mutually beneficial supplier relationships (Lin and



Wa, 2005). There is scope however to more fully understand how the context influences the implementation of quality management systems. HE therefore represents an interesting context given the focus is not on profit but on compliance and regulation.

Quality management initiatives have made their way into higher education (HE) (Sayeda *et al.*, 2010). The HE sector increasingly operates in a highly dynamic and turbulent environment (Baker, 2002; Alashloo *et al.*, 2005). Mok (2005) argues that the providers of higher education operate in a competitive environment, where resources are scarce and they are required to accommodate increasing competitive demands (Becket and Brookes, 2006). The majority of the research on quality management systems in industrial and educational settings emphasises a number of factors that facilitate the successful implementation of these systems, such as top management commitment, involvement of employees and the development of a continuous improvement culture (Curry and Kadasah, 2002; Montes *et al.*, 2003; Petrov, 2006). There is, however, a significant gap in our knowledge concerning context and the challenges presented when implementing quality management systems. O'Neill and Palmer (2004) point out that while it is well accepted that service quality is an important strategic imperative for HE, these organisations face many implementation challenges. Much of the prescriptive quality management literature ignores issues of context, the nature of work processes, structural characteristics and the strategic objectives of the organisation. Studies have concluded that the implementation of quality management in HE is a Herculean but potentially beneficial task if the implementation process is effectively undertaken (Wiklund *et al.*, 2003; Welsh and Dey, 2002). Given that quality management systems emphasise a culture of managerialism in higher education, they evoke a mixed reaction from academics in particular. They are espoused by senior management in HE on the basis that they lead to increased accountability and better resource allocation. Houston (2010) argues that quality assurance systems have not created a culture of continuous improvement. He expresses significant scepticism about the achievement of quality assurance systems in a HE context.

The purpose of this paper is to report and analyse the lessons learned from a case study on the implementation of a quality management system in a specific division within a HE organisation. We focus on four specific themes that proved particularly salient in the case organisation: top management commitment and sponsorship; stakeholder involvement; cultural issues and process issues. The paper is structured as follows: We first discuss the HE context and the characteristics of that context. We then review the literature on the four themes selected for this case study. We then present and analyse the key features of the case study. We conclude with a discussion of the implications of our findings for the implementation of quality management systems in HE organisations.

The higher education context: challenges and paradoxes

The HE context is a particularly challenging one when implementing quality management systems. HE organisations have a unique set of external drivers for change: they have particular notions of what constitutes quality; complex politics around quality and the conflict between quality for accountability and quality of teaching. We consider each of these issues in turn because they provide an important context against which to evaluate the case study findings.

Drivers of quality assurance in HE environments

A multiplicity of factors at an international level currently drive change in HE organisations. These include political, economic and socio-cultural factors. In the Irish context, the most salient political factors driving change include national government initiatives to widen student access, a concern at a political level that HEs produce graduates that are valued in the market place, a concern to merge and integrate HE institutions given the global downturn, a scarcity of resources and restrictions on the employment of academic, administrative and support staff (Schofer and Meyer, 2005). In Ireland, the HE system is significantly constrained by a variety of economic factors. The most significant factors at this time include reduced state funding per student, increased reliance on private sector funding, major reliance on tuition fees from international students, debates around the reintroduction of student fees, a decrease in the number of HEIs and a major drive for international accreditations and internationalisation of student and academic bodies (Kearney, 2008). Particular socio-cultural factors that operate in the Irish context include greater demand for student places, significant increase in the diversity of student populations, growth in programmes and greater diversity of programme provision and consumer pressure to ensure greater accountability and value for money (Prospectus, 2007).

Notions of what constitutes quality in HE organisations

It is generally accepted that the concept of quality is problematic and contested in HE organisations due to the perceptions of different stakeholders (Houston, 2007). Some stakeholders take an economic perspective whereas others operate from more societal perspectives (Eagle and Brennan, 2007). The university is frequently conceptualised at different levels from local, national to international. The educational relationship with the student is a complex one. The notion of customer central to industrial notions of quality assurance is problematic in the HE context. The “student as customer” notion is complex due to notions of citizenship, the absence of the profit motive and its tendency to ignore the views of academics and other stakeholders such as students (Bowden and Marton, 1998). Notions of quality in education are therefore not reducible to a simple utilitarian objective. This complexity of definition has important implications for the way in which quality is understood. Commentators such as Houston (2010) have suggested a move away from established quality systems to paradigms that emphasise pluralism, critical awareness and reflection.

The politics of quality in HEIs

A complicated politics exists around quality systems in HEIs. This political agenda has both external and internal sources. External factors that drive the politics of quality in the Irish context include concerns about the quality of graduates that HEIs produce in Ireland, the need to ensure greater control of higher education by central government, the distribution of findings based on quality metrics, and the need to implement value for money practices in HEIs. At a more micro level, there is a concern that managerialism has become rampant in Irish HEIs. Academics in particular are extremely questioning of the objectives that quality assurance are designed to achieve. There is a concern that quality systems are imposed rather than negotiated and socially constructed (Clark, 2006). A particular political issue concerns the view that those who advocate quality management systems in the HE context subscribe to a vision of a university as a

business and the implementation of business processes that eventually reinforce control, result in the reduction of discretion and advance strategic objectives that focus on a very narrow range of stakeholders (Midgley, 2000; Ulrich, 2001).

Conflict between quality for accountability and quality of learning

Quality assurance systems in HE are criticised for placing too much emphasis on quality for accountability purposes while ignoring quality of learning issues. This has resulted in an over-focus on the implementation of processes that do not address a central issue: what is the quality of learning? Those who adopt this position argue persuasively that the purpose of a university is to contribute to society through its learning, research and service activities (Seymour *et al.*, 2004). Teaching and research are considered to be inter-dependent. Student learning should be at the centre of any quality assurance system. Therefore, the predominant focus of assessing the perceived quality of outputs misses the bigger picture (Carmichael *et al.*, 2001).

The context of quality in Irish HE is therefore one characterised by contested priorities: a narrow conception of stakeholders and difficulty in quantifying the outputs of higher education for quality assurance purposes.

Literature review: implementing quality management systems in HE: key themes

The literature suggests a multiplicity of factors that are relevant to understanding the implementation of quality management systems in HE. We will focus here on key themes that are considered particularly salient to the case study context. We will review the literature findings in each theme.

Top management commitment and sponsorship

Leadership emerges as a major theme in the quality management literature. Vora (2002) has argued that the successful implementation of quality management in HE is difficult without the involvement, commitment and sponsorship of senior HE leaders. A variety of leadership characteristics are highlighted in the higher education literature, including responsiveness, integrity, courage and passion, the capacity to champion change and adopt a collaborative approach to gain the necessary support for quality management initiatives (Drew, 2006; Rosser *et al.*, 2003). Osseo-Asare *et al.* (2007) investigated the role of leadership in TQM implementation in UK HEIs. They identified three important leadership characteristics: the communication of a clear statement of mission, successful implementation of quality processes, utilising an empowerment approach and the use of timely data, information and knowledge of best practices.

Active sponsorship of quality initiatives represents a major driving factor; however, where it is absent it is a significant barrier to successful implementation (Baidoun, 2003). A variety of empirical studies have highlighted that commitment must be continuous, not simply at the initial stages of implementation. Csizmadia *et al.* (2008) highlighted that the higher the commitment of HE leaders within an institution, the faster the pace of quality management implementation and the wider its scope. The theme of sponsorship is highlighted as a particularly powerful dimension of leadership. Aspects of sponsorship that facilitate effective quality management in a HE context include: visible support from the sponsor throughout the implementation process; strong project management; and a focus on ensuring that other organisational

priorities do not get in the way. It is also important that the sponsor publicises the results of implementation and the leaders have a clear vision of what the system will add to the institution (Srikanthan and Dalrymple, 2004). Negative aspects of sponsorship that will derail implementation include: a situation where the sponsor is ambivalent or uninvolved; the goals of the initiative are vague and there is a perception that there is no one involved (Ventatraman, 2007). Other negative dimensions of sponsorship include a situation where HE leaders are more concerned with other issues and problems are not communicated by the sponsor when they arise.

Stakeholder involvement

There are difficulties in transferring quality management principles developed for industry to HE environments. Particular issues highlighted include the lack of acceptance and application of quality management in HE (Roffe, 1998; Lawrence and McCollough, 2001); and less scope to ensure scientific control in comparison to manufacturing (Motwani and Kumar, 1997); quality management systems have greater relevance to academic service departments than teaching areas. Therefore issues of autonomy of academic staff and the definition and role of students within HE (customer or co-producer) is difficult to understand. The latter dimensions point to the centrality of stakeholder engagement and involvement in the implementation process.

The empowerment of employees is considered an important dimension of the majority of quality management systems (Psychogios and Priporas, 2007). However, academics are frequently not consulted and involved in the implementation process. Similarly, in service departments, core employees may have very little involvement in the process. Research in the wider change management literature reveals that about 70 to 75 per cent of major organisational change efforts fail because they fail to meet the expectations of key stakeholders. Middle management involvement is also an issue highlighted in the literature. They have a major role to play in first of all understanding the change processes and then explaining them to employees.

Creating a culture of continuous improvement

A supportive organisational culture supports the effective implementation of quality management systems (Corbett and Rastrick, 2000). Culture is viewed as the glue that binds together all of the key elements of quality management systems. Organisational culture is important because it impacts and helps to alter the perceptions of employees concerning quality. Sinclair and Collins (1994) have highlighted the binding force of culture and how it acts as a force for cohesion in organisations. It may support or inhibit the implementation process.

However, it is well established that inertia is particularly strong in educational settings. Trowler (2005) suggests that organisational culture in HEIs is particularly strong, tenacious and can act as a barrier to or filter major quality improvement initiatives. Asklang and Stensaker (2002) observed that quality improvement in HEIs rarely happens if it is imposed or mandated. It needs to happen through a process of social construction. HEI cultures tend to be bureaucratic and political. Csizmadia *et al.* (2008) found that the more bureaucratic the decision making process and the more political those processes, the slower the pace of quality management implementation.

Continuous improvement is highlighted as a core feature of quality management initiatives. Bhuiyan and Baghel (2005) define it as a culture of sustained improvement

that targets waste and processes. It involves a shared value of quality improvement and an endless pursuit of doing things better. Senior management emerge as key drivers of the cultural (Mizikakaci, 2006).

Process issues in quality management

The process aspects of quality management systems embrace a variety of factors including: self-assessment, internal audits, benchmarking, managing by process, measurement, information and analysis and accreditation of the quality management system (Sayeda *et al.*, 2010). Self-assessment is considered a fundamental process component of quality management systems. Van der Wiele *et al.* (1995) views self-assessment as a comprehensive, systematic and regular review of the organisation's activities and results. Self-assessment highlights strengths and improvement initiatives (Oakland, 2000). Internal audits are an increasingly common element of quality management systems in HEIs, due to the need to demonstrate accountability to a variety of stakeholders and ensure the most effective use of resources (Hoecht, 2006). Quality audits typically are used to sustain the quality management programme but are also necessary to achieve certification (Rajendran and Davadasan, 2005).

Many authors consider benchmarking to be a key tool of effective quality management implementation (Sinclair and Tairi, 2000). It is viewed as a "hard" dimension of quality management and can be used by HEIs as a catalyst for change. It tends to be more problematic in the HEI context due to the intangibility of the outputs of educational organisations. The difficulties with benchmarking might explain why quality management in HEIs is confined to administrative and service rather than quality of research or teaching and learning (Cruickshank, 2003; Aly and Akpovi, 2001).

Quality management emphasises the need to manage by processes (Evans and Lindsay, 2002). Processes present particular challenges in the HEI context. Processes represent a ritual response or performance of compliance (Newton, 2001) and may result in stakeholders not engaging with the ideas and practices of quality management. Houston (2010) articulates it this way:

Within higher education systems that should have learning as their purpose, quality assurance as demonstrated conformance to accountability requirements has been privileged over quality as learning about how we can do better towards achieving our purpose (p. 178).

Another process element highlighted in the literature is an evidence-based approach to decision making about quality. Measurement and evidence may result in a tendency towards "gaining the system" (Becket and Brookes, 2006) rather than evolve to a situation where quality becomes embedded in the culture of the HEI. Public sector organisations have, however, found it difficult to engage with evidence and performance measurement based approaches (Chen *et al.*, 2006).

Study methodology

The study reported in this paper is located within the context of an Information Technology Division within one of the seven public universities in the Republic of Ireland. The Division where the research was undertaken is concerned with providing the university community with quality information and communication technology (ICT) services to facilitate the learning, administrative and research activities within the University. The Division had functioned for many years; however, its status within the

University was that it concerned itself more with efficiency rather than effectiveness. It frequently got itself tied up in documentation rather than delivering a quality service. The Division had during its initial stages of development, undertaken a review of its activities and in 2001 compiled a "QMS Implementation Milestones" document, outlining the key activities required to enhance service. At this point a Quality team was established and a meeting structure put in place. Within a period of two years, a number of key tasks were accomplished including: the definition of key business processes; preparation of a draft quality policy and manual; the creation of a central repository for all quality related documentation; the conduct of voice of customer interviews; quality audits by external auditors; and the definition of service metrics. In spite of these initiatives, significant improvement had not taken place and the Division was uncertain about how to move forward. There was a lack of a significant impact on service levels and the structure and processes in place within the Division were not producing the quality outcomes required by institution stakeholders. As a result of limited improvement, the Division engaged the services of an external quality consulting firm. They conducted a gap analysis and submitted a report in early 2004. As a result of this report, a set of actions was specified to respond to the gap analysis. During 2004 weekly meetings were held to track progress and a call logging system (RMS) was used to log all quality-related issues. In November of 2004, a two-day off-campus management meeting was held. This was facilitated by the external consultant and the key output was the formation of a Service Provision Procedure. This would form the template for dealing with quality issues. The Division worked consistently during early 2005 to embed the quality management system. A team of six internal auditors was trained and an internal audit procedure was implemented. QMS induction training was provided for all staff and in April, a major internal audit was conducted, followed by an external audit. In 2005 the Division was audited by external auditors from the NSAI and was awarded ISO9001:2000 certification.

The research reported in the next section of this paper was based on analysis of documentation and data that was accumulated over the implementation process. It also involved interviews with the IT Division and other stakeholders, active participation by the first named author in the process and personal reflection on successes and failures during the implementation process.

For the purposes of the data analysis, documents and interviews were subjected to content analysis. Content analysis represents a "thorough research technique which allows replicable and valid inferences from data to their context" (Krippendorff, 1980, p. 21). The first step in content analysis focuses on formulating a research question. The main research question posed was: What factors facilitated and inhibited the implementation of the quality management system? For analysis of the data, the researchers reviewed the documentation and interview notes, delineated units of general meaning, delineated units of meaning relevant to the four themes explored in the literature review, clustered units of relevant meaning and identified relevant sub-themes within each cluster.

Findings

In order to present and analyse the findings that emerged from the qualitative data, a four-fold analytical framework was used that reflected the four literature themes. The first area concerned dimensions of leadership and sponsorship and their significance to implementation of the quality management system. The second theme focused on issues relating to engagement with stakeholders. The third area focused on the culture

or staff dimensions of the implementation process. The fourth area focused on the role of quality management techniques, tools and systems.

Leadership and sponsorship of the implementation process

Top management leadership and sponsorship are highlighted as a key driver to trigger the successful implementation of a quality initiative support. The data analysis reveals evidence that senior management had a positive attitude towards the quality initiative and understood its strategic importance in the organisation. There is clear evidence that the management of the IT Division were fully committed to the process of continuous improvement as articulated in Quality Policy documents. Senior management within the division provided focus and ensured that the customer was central to the success of the quality initiative. Senior management within the Division held regular reviews chaired by the Director of the Division to ensure the total commitment of all senior members within the Division. These meetings focused on reviews of the Quality Management System, Quality Policy, Management Objectives and Processes.

There was perhaps less evidence of the involvement of university senior management in driving the process. Top management support at the initial stages did have a role to play in bringing together key stakeholders and sharing with them why the quality initiative within ITD was important in terms of achieving the institution's objectives. Top management support could therefore be characterised as an enabling force that created a climate where the Division could work on the processes that needed to be implemented to improve service to customers and achieve accreditation. Table I summarises some of the key themes related to top management commitment and sponsorship that emerged from the data analysis.

The analysis suggests a mixed picture on leadership and sponsorship within the Institution for the quality initiative. There was recognition at the initial stages at senior levels that the initiative was valuable; however, the initiative was very much driven by leadership within the Division. Leadership tended to focus on the "soft" dimensions of quality system implementation. Institutional leadership focused on aspects of communications, visioning, articulating institution priorities, whereas leadership within the Division emphasised a team approach, where the Division members could share their experiences, learn new methods and approaches, promote team communication and motivate the team to achieve successful implementation.

Stakeholder involvement in quality implementation process

The involvement of stakeholders is considered an important dimension of quality system implementation in a HE environment. Stakeholders typically identified include faculty, staff, students and alumni. The case study highlighted the importance of both a focus on internal and external stakeholders. There is fragmented evidence of a strong stakeholder approach. However, a variety of approaches was used to implement the quality management system within the Division: formal identification by the quality team of the importance of staff; identification of stakeholder needs through written records and data, some evidence of stakeholder self-selection and the use of stakeholders for verification purposes. There was evidence of a strong reliance on the use of formal methods such as surveys to engage with stakeholders; however, the role of stakeholders was less clearly articulated in the QMS Steering Committee. Engagement with students was primarily achieved through the Institution's general

Table I.
Theme 1 – Leadership and sponsorship of the quality implementation process

Sub-theme	Evidence
Senior executives within the University assume active responsibility for leading the quality drive	Strong support by institutional leadership at the initial stages. Less evidence of support during the implementation process. Recognition that change needed to happen but less evidence of personal ownership of the quality implementation process
Visibility of senior executives within University on quality and customer satisfaction	Mixed evidence. Lots of formal communication but less visibility by executives in promoting quality and continuous improvement as core values within the wider institution
Clear, consistent communication of University mission statement defining quality values and expectations	Effectively communicated through the Institution strategic plan. Also emphasised at Governing Authority level. Importance of quality emphasised in official documentation
Effective top down communications on quality priorities and vision	Strong communication within Division. Less effective communication by Institutional leadership
Division Head and managers assume active roles in facilitating continuous improvement	Less evidence of this dimension at Institution level. More focused on criticism rather than promoting continuous improvement values
Championing of initiative by Division Director	Division took a strong driving role in process. Strong advocate of continuous improvement. Described as demonstrating inspirational leadership. Demonstrated that they believed in the process

survey process rather than through specific mechanisms related to the quality implementation process. The Division relied significantly less on the use of meetings and get-togethers to ensure interested parties were involved in the quality system design process. Table II summarises evidence on stakeholder involvement.

The implementation process from the perspective of stakeholder involvement demonstrated a strong insular character. It was a process very much driven by the Division rather than an organisation-wide initiative. There is no evidence that Alumni were involved. Effective use was made of surveys feedback mechanisms; however, this was all driven by the Quality Team. There was less evidence of successful engagement with other functions and the outside world.

Students were clearly not viewed as co-producers in terms of the quality system design and implementation. The literature recommends that students need to be involved in quality management implementation in HE; however, it is clear that they have limited interest in the management of quality. Strong stakeholder engagement would have involved agreeing with stakeholders on values and principles and effective communication with stakeholders. The latter component was more successfully undertaken than the former.

Culture change and quality system implementation

Culture change is considered a central component of effective quality system implementation. The evidence in this case suggests the use of more planned than

Sub-theme	Evidence
Ensure involvement of Faculty and Department Heads in implementation process	Less evidence of proactive involvement of Faculty. However they were surveyed as customers. Limited involvement by Faculty in influencing the design of the quality management system
The use of surveys and tracking to assess employee and faculty support of and involvement in the quality management initiative	Extensive use of surveys as the primary mechanism of stakeholder involvement and engagement. Faculty generally had negative perceptions of the quality of service offered by the Division
Involvement of students in the quality improvement process	Survey of the student population of services provided by the Division. Feedback provided to Director of Division and discussed at quality meetings. Action items recorded in RMS. Limited student involvement in implementation process
The use of customer surveys and feedback process to measure customer satisfaction	Customer feedback regularly sought and improvement action items recorded and communicated to all staff
A team approach to problem solving and continuous improvement	Strong emphasis on the development of in-house expertise. Strong espousal and implementation of a team based approach to promote and enhance quality
Comprehensive identification of customers and customer needs and alignment of processes to satisfy those needs	Customer needs were clearly articulated and identified during the early stages of implementation. Major use of service desk software (RMS) to log improvement actions

Table II.
Theme 2 – Stakeholder involvement in quality implementation process

emergent approaches to cultural change. The quality management initiative was motivated by a realisation that the Quality Division was not delivering the service required by internal stakeholders. The emphasis on documenting the plan for quality improvement and assuming that the various stages could be programmed and controlled is a characteristic of many quality improvement implementation initiatives. A more emergent approach would have focused on articulating the vision for change while letting the specific path of implementation emerge as the project evolved. Table III summarises the key sub-themes in cultural change.

The quality management implementation process utilised a number of strategies designed to bring about cultural change. These strategies focused on information, systematic analysis, measurement and internal audits. However, less emphasis was placed on the soft dimensions of cultural change such as recognition, awards, appreciation Institution-wide, feedback on progress, communications and teamwork throughout the Institution. It is arguable that the quality management system has not resulted in the quality transformation desired, due to the over-reliance on hard dimensions. As a result, the diffusion of the principles of quality management throughout the Institution has not taken place. A significant transformation in culture within the IT Division has occurred. The implementation process failed to acknowledge the need to address cultural change issues in the wider institution

Sub-theme	Evidence
Competitive benchmarking to identify gaps in culture	Used a combination of formal and informal benchmarking processes. Some efforts to make comparisons against best in class institutions. Use of informal benchmarking and knowledge sharing with similar organisations to identify best practices for improvements
Problem solving and continuous improvement processes based on fact and systematic analysis	Major focus on an evidence-based approach utilising systematic analysis of weekly and monthly reports, internal audit feedback reports, customer satisfaction survey data and improvement action items recorded
Clear understanding by the entire institution that each individual and each process has internal customers	Less evidence of strong ownership of quality as a core value by individuals throughout the wider institution
The entire organisation understands and is committed to the vision, values and quality goals of the organisation	Clear statement in Institution strategic plan of the need for continuous improvement. Recognition of need to make improvements and enhance service
Zero errors as the culturally accepted quality performance standard	Error philosophy espoused but less easy to implement and achieve due to technology malfunctions
System for appreciation and acknowledgement of quality efforts and achievements of individuals and teams	Focus primarily on informal recognition and spontaneous feedback. No formal recognition awards within the Institution
Continuous improvement, information and analysis	Major focus on improvement actions including internal audit findings, external audit findings, process/procedure reviews, positive and negative customer feedback, preventive actions and supplier reviews
Internal audits and self-assessment processes	Use of internal audits and other self-assessment processes to drive a philosophy of continuous improvement. A team of six auditors trained by a Lead Auditor. An audit schedule published ensuring that every process is audited at least once a year. Audit checklists and report templates published as part of controlled documentation

Table III.
Theme 3 – Cultural change and quality system implementation

context. This latter approach would have required more championing and communication by top management, whereas this quality implementation initiative was very much left to the IT Division to drive and manage.

Process aspects of quality implementation

The data analysis reveals that strong attention was paid to the process aspects of implementation. In many ways the implementation initiative followed very closely many of the process guidelines found in the quality management literature. Table IV summarises the key sub-themes on this dimension of implementation.

Sub-theme	Evidence
Training of employees within Division to improve interaction and communication skills	Provision of training to staff on skills such as communication, effective meetings, leadership and empowerment skills
Training of employees on problem identification and problem-solving and audit skills	Mandatory training of all staff on QMS and audit skills
Systematic review and analysis of key process measures that impact customer satisfaction	Analysis of call closure data, review of positive and negative customer feedback reports, voice of customer interviews and surveys of all division services
Implementation of a formal documented quality management system	Design and implementation of a quality management system in the initial stages to shape and inform the implementation process
Use of an external consultant to validate and support the process	Extensive use of external consultant to provide advice, validate actions and help Division deal with complex problems and issues
A process approach to implementation	System clearly based on a process approach. All key processes and procedures were identified and documented
Systematic conduct of quality management meetings	A framework for management meetings implemented. All minutes of meetings documented and published on the quality share
Identification and monitoring of key performance indicators	Major focus on implementation of KPIs in four areas: team performance; 90th percentile call trends; service availability trends and number of complaints

Table IV.
Theme 4 – Process aspects of quality implementation

The Division introduced a quality management system through very careful attention to quality improvement techniques and methods and the team driving the process placed significant emphasis on the technical aspects of the process. The Division and the implementation team took the view that they were experts in the area and as a result made the key decisions concerning methods and techniques. Examples of sub-themes that support this view include the use of systematic review, training in problem-solving, the use of a process approach to implementation and the specification of KPIs. These issues focused on identifying key processes and operational aspects required to design and deliver an effective IT service to the institution. They also enabled the Division to demonstrate improvements in customer service and focus on the tangible aspects of delivery. It is clear from the analysis that the QMS has become central to the way the Division conducts its business. It can also be used to define what can be delivered within existing resources. Systems and processes have enabled the Division to break out of a silo and work with internal customers to enhance the quality of delivery of service. A focus on the process dimensions of quality has helped to depersonalise problem situations, which has helped to enhance collaboration between IT and other divisions.

Discussion and conclusions

The case study presented in this paper sought to explore and develop an understanding of the issues driving the implementation of a quality management system within a Division of a HE institution. Quality management systems in a HE context require institutions, departments or divisions to adopt a strategic approach to quality measurement and management. Such systems are generally associated with improvements in customer service and in an ideal situation they incorporate the perspective of students as customers.

Our analysis reveals that quality management was successfully implemented in a service department of a HE institution. This was due primarily to the drive, energy and expertise of the Division involved in the implementation process. There was strong evidence of a team-based approach and an effective combination of both mechanistic and organic approaches. The implementation of an effective quality management system in HE is a dynamic process of monitoring, continuous improvement and change.

However, it must be acknowledged that while ISO registration helps ensure that institutions understand fundamental quality concepts, it does not, however, guarantee that the institution as a whole has evolved on a path towards a culture of continuous improvement. This is perhaps where the implementation process has, to date, proved less successful. It is generally accepted and to a degree illustrated in this context, that a lack of effective institutional as distinct from Divisional leadership inhibited a culture of change within the institution. There is also a need to factor in the student as customer in the process. Indeed, as Srikanthan and Dalrymple (2000) suggest, attempts to implement quality management models across all operations of a University is perhaps not possible due to their tenuous fit with education.

The case study findings do however reveal the value of taking a divisional approach to quality management introduction within a HE context. It may be a more prudent approach rather than taking an organisation-wide approach, which is much more of a risk. Implementation of the QMS in the IT Division perhaps represented an effective starting point. Given the success of the system implementation process, it suggests that if a number of issues are addressed then success is enhanced:

- *Focus on the process not simply the outcomes.* The case study illustrates the importance of focusing on the process of implementation as much as the outcomes. The implementation process is a dynamic one that involves a multiplicity of stakeholders and decisions. The process described and discussed in this case study reveals that it is an iterative one involving progress, setbacks and the embedding of quality processes in the Division.
- *A clear quality policy.* The importance of a clear policy statement is highlighted as a key issue at the outset of a quality implementation process. An unclear policy on quality will operate as a strong impeding factor to successful implementation. Consistent with quality implementation research, a clear policy provides a strong coherent framework, which subsequently sets expectations and guides the actions of all stakeholders. Policy also provides a framework for effective leadership.
- *Understanding customer needs.* The implementation process succeeded because at all times it sought to identify, evaluate and meet the needs of customers within, it should be pointed out, resource limitations. Customer needs were identified primarily through formal methods such as surveys, focus groups,

interviews and the analysis of data. Technology helped in this context through the use of the Service Desk call-handling software. This was used as a central repository of information. A key challenge during the implementation process concerned the prioritisation of needs and identification of the main customer to the service.

- *Leadership and top management commitment.* Leadership in the context of the implementation process operated at a number of levels. Institutional leadership provided the impetus for the process as well as helping secure the resources. However, leadership within the Division sustained the implementation process. Leadership at the divisional level performed a number of functions: motivation of the team to realise the objectives of the implementation process; the creation of an environment where teamwork is possible; protection of the Division from external criticism and pressure; sustaining the implementation process when it experienced roadblocks and the effective deployment of human and technical resources in order to achieve the goals of the implementation process.
- *Be prepared to take a long-term perspective.* The implementation of a quality management system in a HE institution is not a quick fix or something that can be achieved quickly. The process as outlined in the case study took approximately five years to complete. While there will be much enthusiasm in the initial stages, problems will be encountered that require time to address and solve. Therefore, expectations need to be clear concerning what can be achieved, how long it will take and the resource commitment required.
- *The role of external consultants.* External consultants played a significant role in the implementation process. Consistent with the concepts of institutional theory, they help HE institutions to benchmark best practice, to find creative solutions to difficult problems, to fill in for skill gaps that exist within the institution and reassure the internal quality team that it is doing the correct things to achieve accreditation.

It is possible to conclude that a multiplicity of factors contributed to the successful implementation of the quality management system in this HE environment. These included the commitment of institutional and divisional leaders, external consultants, decision making processes and input of customers through needs assessment. All had a strong effect on the implementation process. It is arguable that characteristics of the institution were much less influential. However, we should be mindful that the interaction focused on division rather than being institution-wide. The systematic structured process worked effectively within a Division that was amenable to the application of industry type quality management principles. It is likely that such an approach will not work in the case of a more comprehensive institution-wide initiative. An alternative approach may be required in the case of an institution-wide approach, one that involves a greater degree of stakeholder involvement, involvement of a wider range of stakeholders, more attention to the pluralistic nature of HE institutions, greater space for critical awareness and reflection and to move away from monitoring and accountability to focus on the quality of the fundamental outputs of a HE institution: learning and research. We are also conscious of the need to research the perceptions of other stakeholders. This represents a limitation of the current case study. This represents an important challenge for future research.

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