THE FRAMEWORK FOR MANAGING QUALITY ETHICALLY

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ABSTRACT

Most existing quality programmes have not been adapted to promote the prevention of ethical issues such as fraud, which is constantly reported in the media. This study seeks to uncover the underlying dimensions of ethical quality management and to develop a framework that will facilitate the practice of ethics and quality simultaneously. The multi-step method was employed to explore the practice of ethical quality management. A factor analysis of the collected data resulted in seven significant factors, which were incorporated into the framework. The developed framework should be implemented along with traditional quality programmes to ensure the practice of ethical quality management.

OPSOMMING

Die meeste bestaande gehalte-programme is nie aangepas om die voorkoming van etiese probleme soos bedrog, wat voortdurend in die media oor berig word, aan te spreek nie. Hierdie studie poog om die onderliggende dimensies van etiese kwaliteitsbestuur te ontbloot en om ‘n raamwerk te ontwikkel wat die praktyk van etiek en kwaliteit gelyktydig aanspreek. ‘n Veelvuldige-stap metode is aangewend om die praktyk van etiese kwaliteitsbestuur te ondersoek. ‘n Faktorontleding van ingesamelde data het sewe beduidende faktore uitgelig, wat as die basis van die raamwerk gebruik is. Hierdie ontwikkelde raamwerk, tesame met tradisionele gehalte-programme, moet geïmplementeer word om die praktyk van etiese kwaliteitsbestuur te verseker.

1. INTRODUCTION

Should we do the right thing right the first time, or should we continue to do something right the first time? If we say yes, then it means that quality should not only include doing things right the first time, but also ensure that the right thing is done right the first time. This requires that quality be implemented ethically. Thus the objective of this article is report on a developed framework for the ethical implementation of quality.

Quality is dominant in business [1]. Organisations around the globe show their commitment to quality by adopting different quality programmes [2]. The quality programmes that are implemented in organisations include ISO 9001, business excellence frameworks, Six Sigma, Total Quality Management, and other tools such as statistical process control and Lean management systems [2]. Organisations implement different quality programmes because of the wide range of benefits — such as global competitiveness — that they bring to those organisations [3,4,5].

Although quality programmes have gained popularity in business and have become a primary requirement for trade, they are not exempt from criticism. The disadvantage of quality programmes, such as business excellence frameworks, is that when some of these frameworks were developed, not enough attention was given to the performance of organisations when it comes to social, environmental, human, and ethical issues [6]. There also seems to be a lack of focus on human values by existing business excellence

frameworks [7]. This lack of focus can give rise to unethical practices in order to achieve desirable business results. The implications of such actions can lead to scandals in the long term [7].

The business landscape has changed over the years, and quality programmes have not been adapted to cope with the ethical challenges that organisations currently face [8]. Al-Qutop *et al.* [6] add that quality programmes are good at addressing quality issues, but that they do not cater for ethical requirements in organisations. Therefore, the existing quality programmes cannot be depended upon as standards for managing ethics, since they fall short of ethical standards [9]. Talwar [8] elaborates that ethics-related scandals at major organisations have highlighted the need to focus on managing ethics.

Unethical behaviour in organisations includes allegations of the misrepresentation of test results, fraud, maladministration, corruption, fatalities that could have been prevented, environmental disasters, disrespect of human rights, and overstated assets [10,11,12]. In addition to that, organisations are faced with ethical issues such as theft, deception, and the abuse of authority [6,13]. When news of unethical behaviour in organisations is reported publicly, the organisation's reputation, its market value, and its financial and overall performance can be negatively impacted, especially in the age of social media, in which news can be disseminated across the globe almost instantly [12].

It is unfortunate that the number of media reports of organisations displaying unethical business practices does not seem to diminish [14,15,16]. In response, it is still common practice for organisations to continue to manage quality and ethics separately to restore consumer confidence in their quality and ethics practices. Perhaps a major shortfall of ISO 9001:2015 (the most popular quality management global standard) is the absence of ethics.

According to Svensson and Wood [17], ethics and quality are treated as two separate fields. When research is conducted, it is mostly on either quality or ethics: they are dealt with separately. Research on integrating business ethics and quality management is very limited [17]; and if organisations do not take their ethical obligations seriously, they are bound to suffer [18]. Business ethics is a foundation for good corporate governance, which fosters the excellence that business frameworks aim for — and it contributes to building a sustainable business [19].

Ethics is a term that is used to explain what is regarded as good or bad [20]. Ethics is relevant and applicable to the whole organisation [21]. The ethical approach comes at a cost for organisations; however, the cost of following an unethical approach is too high for organisations [22]. Because ethics-related issues have been reported at some organisations, many are taking measures to ensure that they operate their businesses within the framework of high ethical standards [23]. They introduce measures such as implementing codes of ethics and creating awareness and training [23]. Ethics is a critical issue in organisations — and there are legal consequences for non-compliance with certain guidelines [24].

Just as quality has become a requirement for business, so too has business ethics. Therefore, it is imperative to ensure that quality programmes are enriched not only by addressing quality issues, but also by addressing ethical issues. This should help the quality fraternity to be rejuvenated to serve organisations better and on more broadly by addressing quality concerns and ethical issues together.

This article is based on a study that involved the study of quality management and ethics management and integrating them into a framework for managing quality and ensuring high ethical standards. The rest of the paper is organised as follows. The second section presents a review of the literature, the materials and methods/methods, and the conceptual and analytical frameworks. This is followed in the third section by the results and a discussion of them. The fourth section presents the alternative governance mechanisms, while the conclusion and the policy implications are presented in the final section.

2. LITERATURE REVIEW

The definition of 'quality' that suits the purpose of this paper is that of Taguchi, for whom quality is "when a product or service performs its intended function throughout its projected life under reasonable and harmless operating conditions" [25]. When ethics is practised within quality management, quality should be achieved without causing harm. Organisations have an obligation to meet quality requirements by also considering any potential harm or damage to related human life and to natural resources. In a nutshell, quality is about doing things right and ethics is about doing the right thing; but ethical quality management is about doing the right things right.

Authors and researchers define ethics in different ways [20]. Collins [26] defines ethics as a set of principles a person uses to determine whether an action is good or bad. Generally, ethics explains what is considered good or bad [20]. It comes from the Greek word *ethikos* meaning 'custom or accepted behaviour' [27]. It is a philosophy that seeks to address questions related to morality [28]. Guliani [21] notes that it guides individuals or groups by clarifying what is understood as morally right or wrong. Ethics is a primary requirement in building trust [29]. Raza and Ramzan [30] argue that conducting business within the framework of ethics is not an option for organisations; it is a prerequisite to be able to survive the competitive marketplace. If organisations do not take their ethical obligations seriously, they are bound to suffer the consequences of their actions [18].

The objective of implementing quality programmes is to deliver a product of premium quality to customers [31]. However, despite all the identified benefits of implementing quality programmes, Rajashekharaiah [32] argues that they are not accessible to everyone because of the costs involved in implementation. Developing countries in particular have limited access to these programmes because of the costs associated with deploying them [7].

Babbar [33] argues that it is unfortunate that the definition of 'quality management' has not recognised and brought ethics into the picture. This is based on his study of all of the quality models and frameworks and of quality-related curricular used for teaching. However, Babber [33] supports the notion that ethics be integrated with quality management. Ethics does not feature explicitly as a key determinant of quality: ethics and quality are still seen as separate concepts that cannot coexist [33]. Furthermore, Conti [34] argues that the evolution of quality has focused on the technical part, which is "doing things right", but that there have not been any significant developments in "doing the right thing". Babbar [33] adds that ethics and quality are not only treated separately in practice, but are also not part of the curriculum in quality management courses at universities. Nunes and Park [12] encourage teaching or exposing business students to complex ethical dilemmas in the management of quality so that they get to understand the challenges that will face them when they go into the workplace.

In a study of how ethics can improve business success, Bottorff [35] argues that the main challenges for business are international competition, new technologies, increased quality, employee motivation, the management of diverse work forces, and ethical behaviour. Unfortunately these challenges are addressed separately — especially the dependence of quality on ethical behaviour [35]. Poor quality and inefficiencies in operations in organisations are caused by unethical practices; and so there need to be systems to manage ethical issues effectively [35].

The disadvantage of quality programmes such as business excellence frameworks is that, when some of these frameworks were developed, not enough attention was given to the performance of the organisations in relation to social, environmental, human, and ethical issues [6]. Existing business excellence frameworks also seem lack a focus on human values [7], which can give rise to unethical practices in order to get desirable business results. The implication of such actions is that they can lead to scandals in the long term [7].

Talwar [8] notes that different programmes, such as business excellence frameworks, emphasise attaining excellence in the 'results' of organisations. Further, these same frameworks do not guarantee the sustainability of excellence [8]. Talwar [8] also makes the point that business excellence frameworks' lack of guarantees can open up gaps that increase the risk of the temptation to employ unethical practices in order to get positive results or to maximise gains in the short term at the expense of following ethical practices. The other disadvantage of business excellence frameworks is their limitations. There is a belief that business excellence frameworks emphasise balancing the needs of all stakeholders involved. Unfortunately, however, the focus is limited only to business results — and they lack a focus on the benefits for other stakeholders [8].

Like other quality programmes and tools, the Six Sigma approach comes at a cost for organisations [36]. For it to be successful, physical and people resources are required, but results can be realised quickly [37]. However, one should be extra careful to ensure that results and savings are not fabricated [38]. Managers can be tempted to fabricate results if, for example, their bonuses are tied to Six Sigma savings [38].

With regard to ISO certification, Rodrigues-Arnaldo and Martinez-Lorente [39] indicate that there is a temptation for organisations to ensure that they get an ISO certificate by making superficial changes without really transforming their systems. Organisations that are willing only to make superficial changes

run the risk of succumbing to temptation, such as giving bribes to auditors or certification bodies just to get the certificate. Krivokapic *et al.* [40] also warn that some certification bodies do not respect the profession, that their sole purpose is to make money, that they might have an immoral approach to quality, based on greed, and that they even go as far as 'selling' quality certificates to organisations that do not deserve them — even without conducting audits. This reduces the credibility of certification, as certification audits should be conducted by auditors who are impartial and independent [40]. This has led many buyers who find themselves still having to put additional criteria in a contract to source potential suppliers, and not to depend primarily on ISO 9001 certification status [41]. Such additional criteria are industry-specific 'codes of practice' and 'quality assurance guidance' standards [42].

Many quality programmes such as ISO 9001 are good at addressing quality issues, but they are not capable of taking care of the ethical requirements of an organisation [9]. For example, ISO 9001 cannot be used to detect issues such as the abuse of power by management, employees being disempowered or subjected to a culture of fear and threats, cheating, or misleading, all of which can occur in pursuing quality. Furthermore, quality auditors are limited to auditing organisations against the quality requirements, and do not consider ethical requirements. Unfortunately, these ethical issues and negative motivators can harm human health [9].

All people expect and deserve quality products [31]. Whether or not quality and ethics are treated separately, organisations have a moral responsibility to be truthful and not to deceive customers [33]. Responsibility for one's tasks is an important moral value or principle in the journey to pursue quality and excellence [31]. No quality programme can succeed if the moral value of responsibility is not entrenched in it. Thus responsibility is one of the ethical principles of quality [31].

Supplying organisations need to be informed of their ethical obligations to supply customers with products that will not cause harm [43]. To avoid product recalls and causing harm to stakeholders, ethics needs to be embedded in the product's quality [25]. Misleading customers about product quality goes against the fairness, justice, and equity to which a customer is entitled [33]. It is unfortunate that supply chain and purchasing functions are plagued by ethical dilemmas. There are overwhelming reports of activities such as fraud, corruption, bribery, and practices that knowingly mislead a party in order to reap financial benefits or to avoid an obligation [44]. Corruption entails persuading someone illegally and dishonestly so that the person acts in one's favour [44].

When there is a product recall, the supplying organisation needs to come up with corrective or compensatory measures for customers who bought products with defects [3]. In addition, the supplying organisation has a legal obligation to ensure that defective products that are in the hands of customers are repaired or disposed of safely. Ethical dilemmas arising from poor quality are costly to organisations, such as in the case of Mattel in 2007, when high costs were incurred by lawsuits and other actions by regulators following a product recall [45]. Talwar [4] points out that an organisation for the future is one that should be able to use quality programmes such as business excellence frameworks to integrate the ethical, social, and environmental challenges that business faces, and that the framework developed from this study seeks to address.

3. RESEARCH METHODOLOGY

Owing to the limited scope of an integrated literature on quality and ethics, a methodology to develop some thoughts on this topic had to be followed. This included adopting both qualitative and quantitative approaches, as they are equally useful in research if used in the right context [46]. Therefore, the research paradigm followed was qualitative for the first and second phases, and quantitative for the third phase.

In the first phase, the literature review guided the development of the questions prepared for semi-structured interviews, and an interview guide was used to collect data in face-to-face interviews. Qualitative data analysis is about interrogating the data in order to identify emerging key points, themes, and patterns, to explain the relationships discovered, and to generate theories [46]. The participants, who were senior executives, were asked to identify the ethical issues that can arise in quality management, and also to give their input on how these potential ethical issues can be prevented from occurring. The transcribed interviews were analysed to identify the themes and emerging key points, which were deliberated upon further in the second phase.

The second phase involved using the Delphi technique with quality practitioners and with ethics practitioners. The first round of the Delphi used qualitative data, and the second and third rounds were based on quantitative data. The intent in using the Delphi technique was to build consensus on how quality can be managed ethically. For the first round of the Delphi, the panel of experts were asked to give their input on how ethics can be embedded in quality, thus leading to ethical quality management. The outcome of the qualitative data collected in the Delphi was used to develop the questionnaire for collecting quantitative data, using the Delphi technique. The quantitative data thus collected was used to build consensus on how to manage ethical quality. The results of the second phase informed the questionnaire that was used in the third phase.

The respondents for the third phase were ethics practitioners, quality practitioners, and top management working at the interface of ethics and quality. This phase followed a quantitative approach, using a self-administered questionnaire.

The questionnaire used to collect data in the third phase was developed on the basis the outcomes of the second phase. Section A of the questionnaire consisted of demographic questions for descriptive analysis, such as the respondents' qualifications, their field of expertise, and their number of years in the field. The main section of the questionnaire was Section B, which consisted of eight categories, each with five statements with which respondents had to indicate their level of agreement. The categories were top management, communication, documentation, reporting, certification, audits, risk assessment, supplier engagement, human resources, and organisational culture. The questionnaire used a seven-point rating scale, which allowed the researcher to ask the respondents how strongly they agreed or disagreed with the statements. In order to obtain more precise answers, a seven-point scale should be employed [47]. The last section of the questionnaire, Section C, consisted of an open-ended question. [47] advise that the use of open or closed questions will depend on the context. The respondents were asked an open-ended question in order to provide any other input that would promote ethical quality management. The question was asked in order to give the respondents an opportunity to provide insights into ethical quality management that might not have been covered by the closed-ended questions. Open-ended questions allow respondents to apply their mind and to offer their opinion in their individual ways without the restrictions of 'yes' or 'no' answers [46]. The pre-tested questionnaire was placed on an online platform and a link sent to potential respondents, who were given four weeks to complete the questionnaire. Reminders were sent at the end of each week. At the end of this period, 400 completed questionnaires had been received.

The data collected in the third phase was analysed quantitatively using statistical methods and SPSS software. The methods included Cronbach reliability tests and factor analyses.

The proposal for the planning and implementation of the methodology and the subsequent data collection was reviewed by the Unisa's School of Business Leadership research ethics committee, and an ethics clearance certificate was obtained before the collection of any data.

4. RESULTS

RESULTS FROM PHASE 1

The first phase of data collection in the study involved collecting qualitative data by conducting semi-structured interviews with individual executive managers who worked at the interface of ethics and quality. Five semi-structured interviews were conducted with purposely selected such top management from a wide range of industries. The interviews were conducted over a period of two months, and were all audio-recorded with the consent of all the research respondents. The data collected at every interview was compared with what had already been collected. No significant new information emerged from the fifth interview, and so the saturation point had been reached. The nine themes thus identified were leadership; communication; interested parties and relationship management; resources, policies, and procedures; reporting and knowledge management; certification, audits, and risk assessment; supplier engagement; recruitment and selection, training, and performance management; and organisational culture

RESULTS FROM PHASE 2

The second phase involved using the Delphi technique with 10 respondents. The first round of the Delphi was qualitative in nature: the first round of questions were open-ended in order to elicit a wide range of responses from the panel of experts to the identified themes. The participants were asked to provide their thoughts about ethical concerns when implementing and managing quality. They were also asked to recommend solutions to ensure that potential ethical concerns in quality management are prevented from arising.

The process for conducting the qualitative data analysis collected in the first round involved organising and preparing data, and reading through the responses from the respondents. The contents of the responses were systematically examined for the purpose of identifying patterns, themes, or biases. Themes and similar statements emerging from the panel's feedback were consolidated and grouped together. Similar statements within a group were collapsed into a single statement while ensuring that the meaning of individual statements was not lost. If statements were different, they were returned as such in the second round of Delphi.

Non-related or incomplete responses were eliminated. Keeney *et al.* [48] advise that the overall aim of the expert panel is to identify broad areas of agreement; thus it was reasonable to disregard extreme opinions. The results of the first round were used to develop the questionnaire to collect data in the second round of the Delphi. All ten research participants who agreed to take part in the first round responded.

The feedback from the Delphi respondents on reporting and knowledge management was focused more on reporting than on knowledge management. They communicated the ethical issues that might arise, mostly in reporting. The heading in the Delphi questionnaire was left as "Reporting and knowledge management" for all three rounds to avoid confusion. Similarly, the feedback from the Delphi respondents with regard to certification, audits, and risk assessment was focused more on audits than on certification and risk assessment. Again, the heading in the Delphi questionnaire was left as "Certification, audits, risk assessment" for all three rounds of Delphi to avoid confusion. Last, the Delphi respondents gave more input on policies and procedures than on resources. Once more, the heading in the Delphi questionnaire was left as "Resources, policies and procedures" for all three rounds of Delphi to avoid confusion. The responses were used to develop a rating questionnaire for the second round. This questionnaire included various statements per category, and in rounds two and three the respondents were asked to rate their level of agreement, from a low of 1 (strongly disagree) to a high of 5 (strongly agree). In the second and third rounds of the Delphi, the group responses report for the current round and the individual responses report generated from the previous round were sent to the panel. A statement was taken as reaching consensus when the calculated score was more than 51 per cent. By the end of the third round, all nine categories with their related statements were accepted for the design of the third phase.

RESULTS FROM PHASE 3

Initially 400 completed questionnaires were received, five of which had to be rejected because of missing information. All of the respondents had more than five years of work experience in their professions. The respondents in the quality function were 41.52 per cent of the total, those in the ethics function were 32.91 per cent, and those in the dual function of quality and ethics were 26.08 per cent. Only one respondent did not have a tertiary qualification. Overall the profile of the respondents was acceptable.

The data was analysed by conducting reliability and factor analyses. After the reliability analyses, two of the statements were excluded because their Cronbach's alpha coefficients were found to be higher than their grouped coefficients. Principal component analysis was used to extract the components, and Varimax with the Kaizer normalisation method were used to rotate the factors; seven factors were formulated. The results are shown in Table 1, which shows the means and Cronbach's coefficients (alpha) of the themes and their respective statements.

Table 1: Means, Cronbach's coefficients, and contribution to the factor

F 1	**1. Top management** Mean: 6.83 Standard deviation: 0.37 Cronbach's alpha: 0.799	Alpha	Mean	Contribution to factor after factor analyses
F 1-1	Top management should integrate the ethical values of the organisation with its quality values.	0.756	6.85	5
F1-2	Top management should practise and demonstrate ethical values and quality values together by example.	0.765	6.87	5
F1-3	To what extent do you agree that top management should consider justice, honesty, trustworthiness, and integrity to all stakeholders before considering decisions and policies related to the quality management system?	0.726	6.81	5
F 1-4	To what extent should top management be honestly responsible and accountable to affected parties when the quality of products or services is compromised, thus incurring losses?	0.766	6.78	Not considered after factor analyses
F 1-5	Top management should ensure that quality objectives are achieved in an honest, trustworthy, and fair manner.	0.788	6.83	5
F 2	**2. Communication** Mean: 6.70 Standard deviation: 0.54 Cronbach's alpha: 0.847	Alpha	Mean	Contribution to factor after factor analyses
F 2-1	The organisation should determine the internal and external communication that is relevant to the quality management system in a language (e.g., the mother tongue) that is easily understandable by the relevant stakeholders.	0.876	6.49	Not considered for factor analyses
F 2-2	The organisation should determine internal and external communication using media that are conducive to recipients.	0.799	6.74	3
F 2-3	The organisation should determine the internal and external communication that is relevant, honest, and fair to the stakeholders regarding quality communication.	0.808	6.79	3
F 2-4	The organisation should determine suitable and fair (suitable language, accessible media) systems for feedback from stakeholders.	0.783	6.75	3
F2-5	The organisation should determine internal and external communication that enhances human worth and dignity by fostering truthfulness, fairness, responsibility, personal integrity, and respect for stakeholders.	0.825	6.74	3

Table 1: Means, Cronbach's coefficients, and contribution to the factor (cont.)

F-3	**3. Documentation** Mean: 6.65 Standard deviation: 0.64 Cronbach's alpha: 0.822	Alpha	Mean	Contribution to factor after factor analyses
F 3-1	The organisation should have one integrated policy for quality and ethics.	0.767	6.56	Not considered after factor analyses
F 3-2	Quality objectives must be developed with consideration for any potential harm and damage to related human life and natural resources.	0.795	6.70	7
F 3-3	Development of all quality-related policies and procedures should be done in a consultative manner with all parties concerned (i.e., suppliers, customers, unions, employees).	0.760	6.62	7
F 3-4	The organisation should ensure that all quality-related documents are always available and accessible to all stakeholders without any prejudice.	0.770	6.70	1
F 3-5	All policies and procedures that are designed for the organisation should address the betterment of the organisation and its stakeholders rather than compliance.	0.832	6.68	Not considered after factor analyses
F-4	**4. Reporting** Mean: 6.73 Standard deviation: 0.47 Cronbach's alpha: 0.790	Alpha	Mean	Contribution to factor after factor analyses
F 4-1	The organisation should have a quality hotline to expose those who deliberately fail to uphold the production of quality products and services.	0.834	6.53	Not considered factor analyses
F 4-2	The quality review committee should accept and deliberate on items that uphold quality- and ethics-related matters together.	0.705	6.72	1
F 4-3	The organisation should ensure that all of its quality data is produced and stored in such a manner that it is true and does not promote misrepresentation.	0.749	6.81	Not considered after factor analyses
F 4-4	The organisation should have a reporting system whereby information about the risks and opportunities in the products and services can be received.	0.736	6.78	2
F 4-5	The organisation should collect data and documentation that is fit for purpose to achieve quality objectives only, and not just for the sake of collecting data with no purpose.	0.749	6.80	2

Table 1: Means, Cronbach's coefficients, and contribution to the factor (cont.)

F-5	**5. Certification, audits, risk assessment** Mean: 6.62 Standard deviation: 0.56 Cronbach's alpha: 0.752	Alpha	Mean	Contribution to factor after factor analyses
F 5-1	The organisation should ensure that all internal and external management system auditors comply with the auditors' code of ethics.	0.729	6.81	2
F 5-2	The organisation should welcome any stakeholders who wish to validate the quality practices without prior notice.	0.705	6.26	6
F 5-3	The organisation should make all audit reports available to all stakeholders as recorded (without any alterations).	0.660	6.43	1
F 5-4	The organisation should conduct internal audits at planned intervals to ensure compliance with both quality and ethical standards.	0.709	6.80	Not considered after factor analyses
F 5-5	The organisation should ensure a system for audits that ensures transparency, fairness, dignity, and respect for all stakeholders with and in the audit.	0.723	6.81	1
F-6	**6. Suppliers' engagement** Mean: 6.76 Standard deviation: 0.48 Cronbach's alpha: 0.746	Alpha	Mean	Contribution to factor after factor analyses
F 6-1	The organisation should have a policy that ensures that the awarding of contracts and tenders to suppliers includes their quality of delivery.	0.704	6.86	2
F 6-2	The organisation should ensure that suppliers are honest, transparent, respected, and ethical in their behaviour.	0.731	6.86	Not considered after factor analyses
F 6-3	The organisation should be committed to a detailed service level agreement that shows a commitment by all parties, irrespective of unrelated circumstances.	0.663	6.80	1
F 6-4	The organisation should ensure the maintenance of quality, rather than financial objectives, as a prior requirement for the engagement of suppliers.	0.657	6.61	1
F 6-5	The organisation should accept responsibility for the failure of products and services, irrespective of the failure of suppliers.	0.744	6.65	4

Table 1: Means, Cronbach's coefficients, and contribution to the factor (cont.)

F-7	**7. Human resources** Mean: 6.74 Standard deviation: 0.49 Cronbach's alpha: 0.793	Alpha	Mean	Contribution to factor after factor analyses
F 7-1	The organisation should employ quality practitioners who have been trained in business ethics.	0.743	6.64	6
F 7-2	The organisation should implement disciplinary procedures and subsequent penalties with personnel who fail to maintain the quality of products and services to relevant stakeholders.	0.721	6.63	6
F 7-3	The organisation should have a performance management system to maintain a competent ethical workforce that delivers quality.	0.767	6.82	2
F 7-4	The organisation should ensure a fair compensation and reward system for people involved in the delivery of high-quality products and services.	0.747	6.77	3
F 7-5	The organisation should engage with employees on quality problems and quality improvements at all times.	0.774	6.86	2
F-8	**8. Organisational culture** Mean: 6.63 Standard deviation: 0.68 Cronbach's alpha: 0.819	Alpha	Mean	Contribution to factor after factor analyses
F 8-1	To what extent do you agree that the culture of winning at all costs and the fear of losing one's job can contribute to personnel achieving quality dishonestly?	0.805	6.49	4
F 8-2	To what extent do you agree that, if employees are able to communicate openly with superiors about their work challenges, they could minimise ethical issues?	0.759	6.65	4
F 8-3	To what extent do you agree that the organisational culture is more heavily influenced by practices, values, and beliefs than by documented procedures?	0.798	6.70	Not considered after factor analyses
F 8-4	To what extent do you agree that involving and engaging employees in decisions about quality and ethics would promote ownership?	0.808	6.74	Not considered after factor analyses
F 8-5	To what extent do you agree that engagement with stakeholders could minimise ethical issues?	0.738	6.59	4

The selected statements per group were examined to provide a suitable thematic factor. The results are shown below in Table 2.

Table 2: Empirical findings from research: Overall significant factors (Source: Developed by the researcher)

Significant factor	Variables contributing to the significant factor
FACTOR 1 **Monitoring and reporting**	The organisation should promote transparency in all quality-related documents and practices, with the performance of all relevant monitored stakeholders through quality reviews, service level agreement performance, ethics values performance, and audits that are conducted in a transparent, fair, dignified, and respectful manner.
FACTOR 2 **Institutionalisation**	The organisation should ensure that all relevant stakeholders are familiar with and adhere to the code of ethics, values, and governance procedures through constant engagement, open communication, and training, and use the collected data to improve performance in these areas.
FACTOR 3 **Communication style**	The organisation should communicate in a manner that is honest and fair to stakeholders, employ fair systems for feedback, use media that are conducive to all recipients, and promote a communication style that enhances human worth by fostering truthfulness, fairness, responsibility, personal integrity, and respect.
FACTOR 4 **Organisational culture**	The organisational culture should be demonstrated by ethical responsibility, employing open and transparent communication with relevant stakeholders about upholding ethical values.
FACTOR 5 **Top management commitment**	Top management should take the lead in upholding ethical values and quality values together by ensuring that quality objectives are achieved in an honest, trustworthy, and fair manner, with consideration for justice, honesty, trustworthiness, and integrity for all stakeholders before considering decisions and policies related to the quality programme.
FACTOR 6 **Ethical human resources management practices**	The organisation should continually train employees and declare them competent in business ethics, and implement disciplinary procedures and subsequent penalties for personnel who knowingly fail to maintain the quality of products and services, and be open to welcoming any stakeholders who want to validate their quality practices without prior notice.
FACTOR 7 **Policy and objectives**	The organisation should have a single integrated policy for ethics and quality, supported by objectives that consider all related ethical challenges, do not have the potential to cause harm, and are signed by the CEO and relevant stakeholders who are trained during induction.

These seven factors are presented diagrammatically below as the framework for ethical quality management.

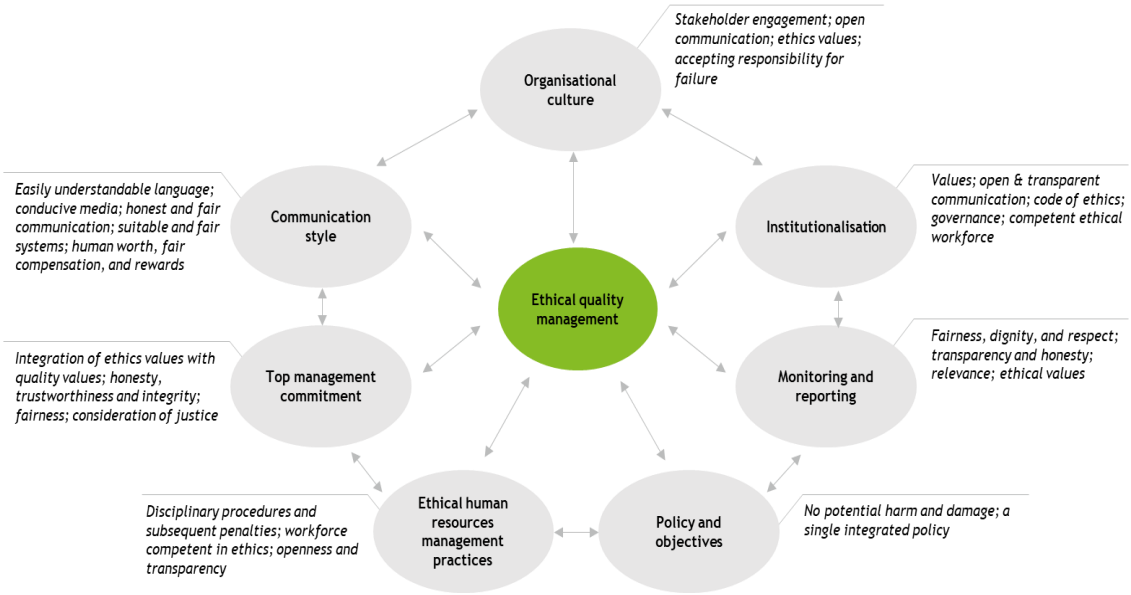

Figure 1: Framework for ethical quality management

5. CONCLUSION

Currently it is common practice in organisations for ethics and quality to be managed as separate functions. So this study could be considered an innovative multi-step study that explored addressing both quality and ethical requirements by soliciting data from key stakeholders in ethical quality management. The study intended to address the gap in implementing quality management programmes in a way that addressed both quality and ethical requirements. The developed framework for ethical quality management arose from the seven significant factors that emerged from the factor analysis conducted on the collected data. The study generated new concepts and approaches to quality management by embedding ethics within the practice of quality management for the betterment of business processes. In addition, the developed framework could be considered a foundation for implementing quality models such as ISO 9001 and other quality excellence methodologies.

6. RECOMMENDATIONS

The frequent media reports of organisations that have quality programmes in place and that have even achieved certification, but that perform poorly when it comes to ethics, are a clear indication that the quality profession needs more sector-wide research studies. These studies would provide guidance on enhancing traditional quality management programmes so that they address both the quality requirements and the ethical requirements for the benefit of businesses. Research should be undertaken to determine the impact of the developed framework on quality management. This could be done by implementing quality management programmes with reference to the ethical requirements of the framework. An empirical study could discover both the framework's strengths and areas for improvement, leading to its adoption or further development.

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