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Internal Audit Program Planning and Implementation Determinants of an Automotive Company's ISO 9001 Quality System

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Abstract

This single case study examined how key internal audit planning and implementation determinants impacted a South African automotive company's ISO 9001 Quality Management System (QMS) objectives. The study used a mixed method approach; qualitative data nesting in quantitative data. The purposive sampling technique was used to collect primary data from managers, internal quality auditors, and auditees. Professional judgment was used to collect secondary data from the 2017 to 2020 audit reports. Descriptive data analysis was conducted on the data collected. The internal audits were conducted beyond departmental boundaries and organizational structures. The audit determinants were; compliance with the ISO 9001 standards, and maintenance of ISO 9001 QMS certification. The process and system internal quality audits were conducted to correct nonconformities before and after external audits. Audit reports from certification bodies also determined the scope of the subsequent internal audit programs for processes and systems. In addition, the internal auditors relied on their judgments and on the technical experts' advice to sample processes, areas, and material to be audited. management audit review reports also contributed to determining the scope of audit programs. Despite different stakeholders' contributions, the company's internal quality audit programs did not embrace customer focus and continuous improvement. The audit program was a reaction to internal and external stakeholders' complaints. However, the study is fundamental to improving the company's ISO 9001 QMS performance. It discusses issues that drive the planning and implementation of audit programs. The findings are likely to stimulate similar research in other sectors and on a bigger scale. There are also opportunities to evaluate the determinants related to monitoring, reviewing, and improving audit programs.

Keywords: Audit program determinants, Internal quality audit, ISO 9001 quality management system, Automotive company, South Africa.

1 | Introduction

The impact of internal quality auditing on the performance of ISO 9001 Quality Management System (QMS) depends on its effectiveness [1]. The ISO 19011:2018 standard defines effectiveness as the extent to which planned activities and results are realized [2]. Thus, to understand how internal quality auditing practices are planned and their results realized, an investigation of the practice of implementing and managing an internal quality auditing program is necessary [1], [3]. An audit program is an arrangement of a set of one or more audits planned for a specific period and a specific purpose [4]. It is more than a plan that presents audit topics, frequencies, and timings. It also provides information necessary to assess the performance of the QMS of a company [5], [6]. The decisions relating to the scope, frequency, and timing of internal quality audits allow for an objective self-introspection of audit program management practices. To understand how the audit program is

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managed in a company, it is necessary to examine the determinants of the audit decisions and the impact of the determinants on the company QMS [1], [3], [6]. This study sought to analyze the internal quality audit program planning and implementation determinants in a South African automotive assembly company called company XYZ. The study is significant to company XYZ and comparable companies for two reasons. The determinants studied will reveal whether company XYZ focuses on 1) compliance with ISO 9001 standards, or 2) customers and continuous improvement.

1.1 | Company Profile

Company XYZ, an automotive assembly plant in South Africa, is part of a global network of 31 plants. It has produced vehicles for over 46 years and has implemented and maintained its integrated quality and environmental and safety management system certifications for over 20 years. Company XYZ is certified to ISO 9001: 2015. However, it is not certified by the automotive QMS, IATF 16949, like other OEMs in the sector.

A study by Msibi and Chiromo at company XYZ found that an increase in the number of internal quality audits conducted according to ISO 19011:2018 guidelines did not correspond to a reduction in nonconformities [8]. Moreover, there was no clarity on the frequency of internal quality audits. This study aimed to analyze the determinants of the company's internal quality audit planning and implementation programs.

2 | Literature Review

ISO 9001 QMS internal quality auditing standard was seriously discussed in the early 1990s [9]. Internal quality audits are conducted for several reasons: to determine whether a QMS conforms to ISO 9001, detect and eliminate nonconformities and their causes, and identify improvement opportunities [10]. Some auditing objectives are to gain certification of the QMS and to ensure the continuity and improvement of the system [11]. Audits shift organizations from reactive to proactive. Organizations seek to address customer complaints, non-conformities, scrap, and rework in a reactive state. Alternatively, proactive organizations seek to improve customer satisfaction; identify opportunities for improvements in product or service, timeliness, and cost reductions [12]. Most studies in the past on internal quality auditing focused on improving the implementation and effectiveness of internal quality auditing practices [9], [12]–[14]. Few papers have been written on internal quality auditing in the automotive industry. Refer to [5], [15], and none discusses internal determinants in the automotive sector. In response to this gap, an empirical study was conducted on the planning and implementation determinants of the QMS audit program in company XYZ.

2.1 | Audit Program Management

To become certified to the ISO 9001:2015 standard, organizations must undergo an initial certification audit and then implement internal quality audit programs [17]. The programs facilitate the conduct of 1st party audits (internal audits), 2nd party audits (external audits) by major customers, and 3rd party audits (external audits) by certification bodies [17].

The typical steps for conducting both internal and external audits are shown in *Fig. 1*. *Step 1* establishes effective communication between the audit team and the auditee. *Step 2* involves deciding the functions and processes to be audited, identifying the physical locations of what is to be audited, and establishing the dates and duration for audit activities.

The fieldwork in *Step 3* involves organizing an opening meeting, the audit interviews, and the closing meeting. Next, the audit report is prepared and distributed in *Step 4* before closing the audit in *Step 5*. Lastly, *Step 6* validates the completion and effect of the actions promised by the auditee [17]. Then the company

goes through similar steps when effecting continuous improvement. The migration from one step to another is smooth when there is a unit of purpose between the auditors and the auditees [17].

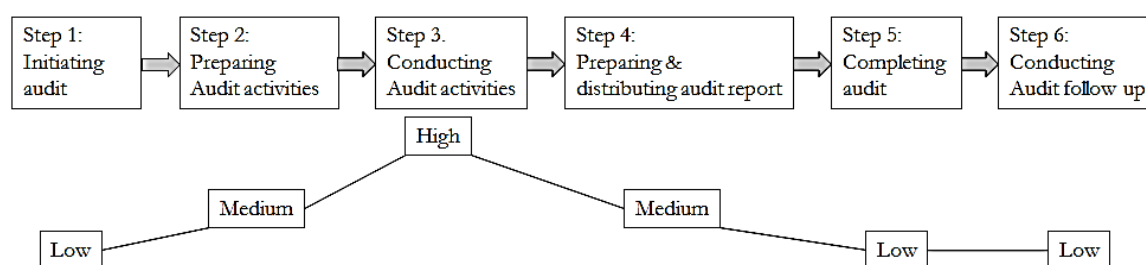


Fig. 1. The steps for conducting the audit process [17].

The ISO 19011:2018 standard provides guidelines for developing and managing audit programs (planning, implementing, monitoring, reviewing, and improving).

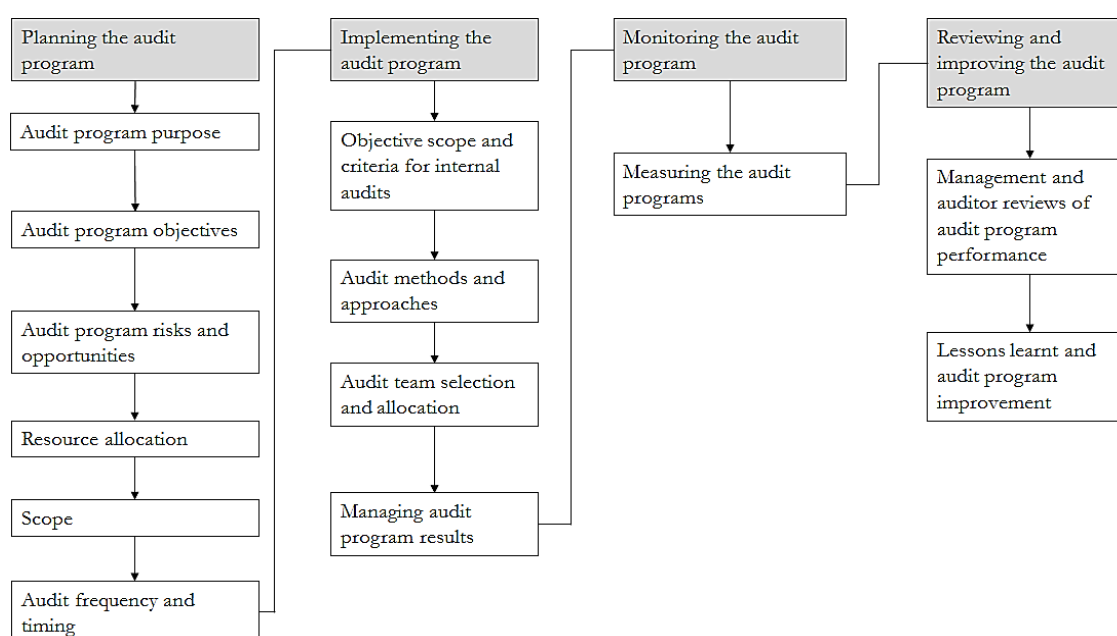


Fig. 2. Internal quality audit program management [6].

In this study, the determinants for internal quality audits for the planning and implementation phases were analyzed in line with the ISO 19011:2018 standards framework (Fig. 2).

2.1.1 | Audit program management

An audit program's purpose and objectives are established in the planning phase of an audit program. This phase involves analyzing risks and opportunities; establishing the responsibility for maintaining the audit program; identifying audit resources; and establishing audit scope, frequency, and timing [7], [18]. In addition, the audit program includes planning the opening and closing meetings, reporting audit findings, and making follow-ups on corrective actions [9]. The outcome of the planning phase of the audit program is actionable.

2.1.2 | Implementation of the annual audit program

The implementation of the audits follows the planning phase. This includes defining the objectives and scope of the individual audits, the selection of auditors, and the audit approaches. The effects of audits are a basis for assessing the audit's contribution to achieving business goals and improving the company's

efficiency [10]. The effects depend on company management's understanding of audits, attitude toward audits, and how management responds to audit findings [10].

2.1.3 | Monitoring of audit program

Monitoring the audit program entails assessing the performance of the audit program [6]. The assessments check the efficiency, effectiveness, and gap between actual and expected performance [1]. Although both efficiency and effectiveness are equally important, effectiveness is commonly used to measure and monitor audit performance [1]. The key measures for measuring and monitoring the effectiveness of an audit program include the number of completed planned audits, the number of identified nonconformities, the number of repeat audit findings, the time taken to issue audit reports, the time taken to implement corrective actions, and the number of process improvements emanating from audit findings [3], [11].

2.1.4 | Review and improvement of the audit program

In reviewing the audit program, top management and individuals responsible for managing the audit program assess whether the objectives of the audit program have been achieved. The lessons from the reviews are then utilized to effect the audit program's improvements [6].

2.2 | Audit Program Planning Determinants

The first step in developing an internal quality program is identifying the determinants for managing the audit program. These determinants cut across the planning, implementation, monitoring, and review phases, including the purpose and objectives, risks and opportunities, audit resources, audit frequency, and timing decisions [3], [5], [7], [18].

2.2.1 | Audit program purpose and objectives

In addition to providing information on failures and conformities, an audit program provides a basis for effecting improvements [3], particularly in response to the call for a systems approach to managing a quality auditing program [18], [19]. The systems approach to managing an audit program views each internal audit within the program as a sub-system of the ISO 9001 QMS, and each internal audit is linked to other internal audits [19].

This means that the planning and implementation of the audit program must focus on the purpose and performance of the overall QMS. Audit program management draws inputs from management, auditees, external quality auditors, and other stakeholders. Moreover, data and information from other systems in the organization are reviewed. The inputs maintain the company's focus on conformity to requirements, customer needs, and continuous improvement [6], [7].

2.2.2 | Audit program risks and opportunities

The principle of Risk-Based Thinking (RBT) generates awareness of the risks and opportunities that influence a company's ISO 9001 QMS performance [5], [18]. The RBT principle must be incorporated in key audit program planning, scope, frequency, and timing [2], [3].

2.2.3 | Audit program resources

The availability of adequate skills in internal quality auditors and the persons responsible for managing audit programs are important when planning an audit program [15]. Internal quality auditors, knowledgeable of the processes and areas to audit, are important determinants. An auditee or an audited organization is also a factor in an effective audit [9]. The auditees work with auditors in the audit program while the auditors are responsible for completing all work according to ISO 9001:2015 standard [9]. People

responsible for the audit program's management analyze the system's performance and prepare reports on the overall program efficiency and effectiveness [21]. In cases where managers are not available, technical experts should be engaged [7]. In addition, financial support for the audit program should be allocated [21].

2.2.4 | Audit program scope

Internal quality audits include a company's processes, activities, products, and systems in the audit program's scope. The scope should be narrowed to require fewer audit personnel, shorter audit time, and fewer corrective actions. The narrowing of the scope avoids the generalization of audit findings [22]. An audit based on processes is recommended because it helps internal quality auditors evaluate how the processes' inputs and outputs are managed to achieve the desired results and improve performance [20].

2.2.5 | Audit timing and frequency

Clause 9 of the ISO 9001:2015 standard requires that internal quality audits are planned and conducted regularly. The ISO 19011 standard provides guidelines without suggesting a specific audit frequency [6], [18]. However, it is recommended that audit frequency be based on previous performance and the criticality of the processes [5], [22]. As audits are dynamic and adaptive, the timing and frequency can gradually be improved with time to bring quality improvements to the audit program [7].

There will be no continuous improvement if time is inadequate to conduct audits. A company that wants to be competitive, innovative, and an industry leader must continuously improve its processes and employees [24]. Repeating audits by the same auditors render them predictable, generating less meaningful insight and potentially leading to audit paralysis [14]. Lastly, all planned actions must be followed up timeously, monitored, and evaluated to ensure that the QMSs are maintained over time [9].

2.3 | Audit Program Implementation Determinants

In the execution phase of the audit program, a determination is necessary on how the audit evidence is sampled, how team members are allocated audit assignments, and how corrective audit actions are implemented [6].

2.3.1 | Audit evidence sampling methods

The sampling can be done using either non-probability or statistical probability techniques. When statistical probability techniques are used, the evidence should be selected randomly and be representative of the population. In determining the sample size, intricacy, capacity, risk, past issues, and quality of available data are all assessed [2], [22].

2.3.2 | Audit team selection

The decision to allocate internal quality auditors to specific audit tasks goes beyond the availability of the auditors. Internal quality auditors who are knowledgeable and competent to audit the processes are crucial. Sometimes, it is necessary to pair technical experts with internal quality auditors for specific processes [4].

2.3.3 | Internal quality audit results

Internal quality audit results that provide conformity information only are inadequate as they do not stimulate auditees to improve the processes [5]. Internal quality audit reports need to include

improvement recommendations. These recommendations create opportunities that address the findings and rectify issues when planning and implementing corrective actions [3], [14].

2.4 | The Study Contribution

This study contributes to the debate on internal audits by analyzing the audit planning and implementing program determinants in company XYZ. Though the findings are associated with company XYZ and are not generalized to the automotive sector, they initiate a debate on determinants in the automotive sector and other manufacturing sectors. The debate and discussions have a bearing on improving the quality of internal quality audits. Ultimately, the audited companies will transition from reactive to proactive states, which augurs well for companies that seek to be competitive.

3 | Methodology

This project was a stand-alone, single case study that was conducted: 1) to describe the key determinants for planning and implementing audit programs, and 2) to describe how determinants impacted the ISO 9001 QMS performance objectives of company XYZ.

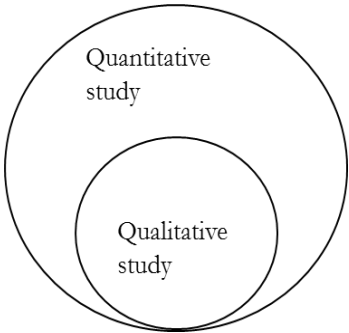


Fig. 3. Qualitative nested in quantitative design [25].

The study was a mixed method, with qualitative nesting data inside quantitative data (*Fig. 3*).

The research provides knowledge practitioners can use at the focal company and other manufacturing companies to improve their internal auditing practices. The conclusions are not generalized beyond the research case.

The literature review revealed the key factors necessary for internal quality audit program planning and implementation.

It also provided knowledge that assisted in analyzing and interpreting secondary data concerning audit program decision determinants [26].

3.1 | Data Collection

The researchers obtained written approval from company XYZ to conduct the study and ethical clearance from the university of Johannesburg. Initially, quantitative data was collected exclusively from historical internal quality audit program records for 2017 to 2020. Then, qualitative data was collected from historical internal quality audit reports. Finally, a retrospective document analysis was conducted to garner insight into the 2017 to 2020 period. This helped the researchers understand how audit program planning and implementation occurred in company XYZ. Qualitative analyses of internal audit reports bolstered the insight gained from analysis of the quantitative data obtained from audit program records.

3.2 | Sampling Technique

A nonprobability judgment sampling technique was used to select the audit reports for analysis. The sample size for the analyzed documents came to 33 audit reports, translating to 20% of the total internal quality reports compiled between 2017 and 2020. This exceeds the minimum sample size (10%) recommended by Mamaile [27]. Having a bigger sample size made it easy to reach the data saturation point for each audit program determinant [26].

Purposive sampling was used to select the interview participants. The chosen people had experience in drawing up and reviewing internal quality auditing programs at company XYZ. They comprised managers, auditors, and auditees.

3.3 | Data Analysis

Descriptive data analysis was adopted to analyze the quantitative data, and deductions were made. Thematic analysis of qualitative data elaborated on the understanding gained from the quantitative data. The two data sets provided an integral assessment of the planning and implementation determinants of the internal quality audit program at company XYZ.

4 | Findings

Company XYZ has six quality operation departments; logistics, body shop, paint shop, vehicle assembly, total vehicle quality, and purchasing. Each department's internal quality audit program is managed by a departmental general manager, line manager, and internal quality auditors. The mandate of each team is to manage product quality, process quality, and techniques and tools used to achieve quality compliance. For example, product audits pay attention to the features of a car as it progresses through the production line. On the other hand, process audits pay attention to work instructions and work procedures. Each audit goes through phases comparable to those in *Fig. 1*. Relevant audit checklists, interview techniques, and other tools and techniques are adopted during the audits. Systems audits are conducted at the group level and by personnel outside the assembly plant but are internal at the group level.

The auditors, auditees, and management know the audited products, processes, and systems. The auditees work with auditors during the audit process, and the auditors conduct the audits according to ISO 9001 requirements and ISO 19011: 2018 guidelines. They communicate critical and significant findings to the auditees and the management. All post-audit actions planned are followed-up timeously and monitored and evaluated to ensure that the QMSs are maintained over time.

4.1 | Key Audit Program Planning Determinants

Results from the audit program planning reports revealed that process instability, process non-adherence, and external audit results influenced audit program planning decisions relating to audit objectives, audit scope, and audit frequency. These are discussed in the following sub-sections.

4.1.1 | Audit program objectives determinants

In 2018 and 2019, the audit program objectives sought to meet production requirements and improve quality metrics. In 2020, two additional audit program objectives were added: 1) to support the company's preparedness for external quality audits, and 2) to maintain the ISO 9001 certification. These objectives show the company's desire to enforce process adherence, thereby complying with ISO 9001 QMS requirements. Adopting these objectives reduced the total number of nonconformities from 129 to 20 from 2019 to 2020. Company XYZ regained its QMS certification when external auditors conducted a certification audit in 2019.

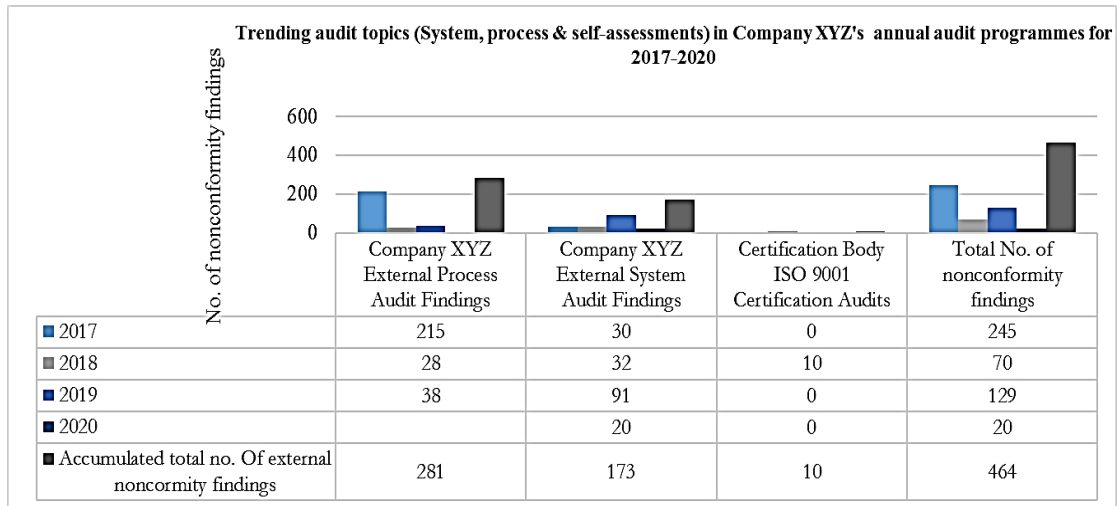


Fig. 4. Distribution of external quality audit nonconformities (2017-2020).

4.1.2 | Audit program scope determinants

The external quality audit results in *Fig. 4* were the main determinants in deciding the scope of the future internal audit programs for processes. The internal quality audits were conducted to identify and correct nonconformities before and after external quality audits. The processes and system internal audits were conducted to assess compliance with ISO 9001 procedures, standards, and guidelines. There is no indication that the audits had a thrust on continuous improvement.

Fig. 5 shows that for the 2017-2020 audit program, 61% of the audits were process audits, 26% were self-assessment audits, 9% were system audits, and 4% were legal compliance and project audits. The statistics in *Fig. 5* show company XYZ's internal quality audit practices prioritized processes [4]. Hoyle argues that process audits extend beyond departmental boundaries and organizational structures, thereby making it possible to assess synergies across organizational units [4]. The transcending of audits across departmental boundaries also renders the call by Alic and Rusjan to adopt a systems approach to internal quality audits significant [13].

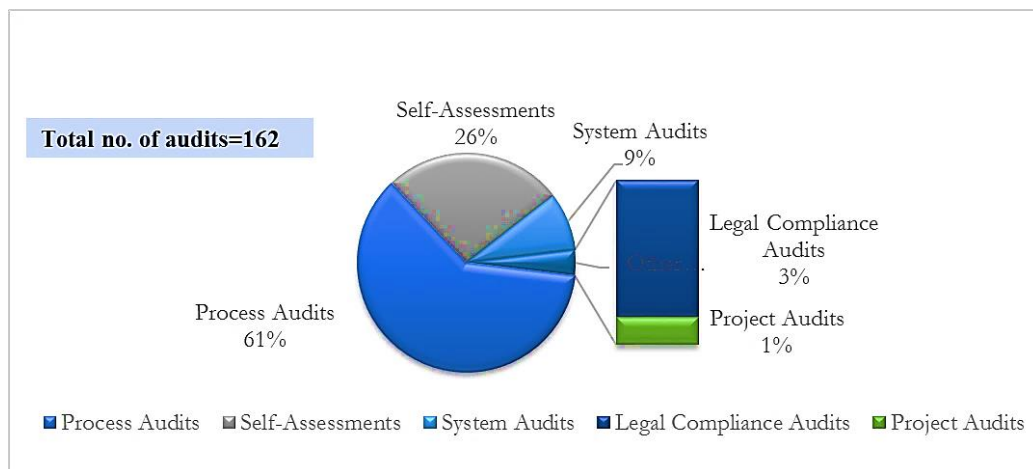


Fig. 5. Company XYZ's audit program distribution (2017-2020).

Table 1 shows that 71 of 104 process audits (68%) at company XYZ evaluated compliance with production procedures and requirements. Combined with audits to prepare the company for certification, the total number of process audits conducted between 2017 and 2022 rose to 87 of 104 (84%).

Self-assessment audits were undertaken to prepare for internal quality audits; this focus constituted 29 of 43 (67%) self-assessment audits conducted between 2017 and 2020, as observed in *Fig. 4*.

Table 1. The link between audits and audit program objectives at company XYZ.

	Complying with ISO 9001:2018 Requirements	Complying with Production Procedures	Preparation for Certification Audits	Stabilization and Maturing of QMS	Total Audits
Process audits	11	71	16	6	104
System audits	8	-	1	5	14
Self-assessments	-	11	29	3	43
Total number of audits	19	82	46	14	161

Company XYZ planned its audits to identify nonconformities before internal and external quality audits. This allowed the company to maintain its ISO 9001 QMS certification. However, there was little impact on continuous improvement.

The top five audits in company XYZ's annual audit programs in 2017-2020 focused on: 1) sustainability audits, 2) documentation management audits, 3) test equipment management audits, 4) quality, environmental, health, and safety audits, and 5) zone audits (*Fig. 6*). These audits reflect areas from which historic findings emanated. Sustainability and company documents had the highest number of audits between 2017 and 2020. However, auditors were not happy with this arrangement. This could be explained by Lenning and Gremyr [28], who argue that too much focus on documentation and conformity is perceived as a policing activity [28].

Documentation and other internally driven conformity audit also diverted attention from continuous improvement and customer focus objectives. The audits set the company in a reactive rather than a proactive mode.

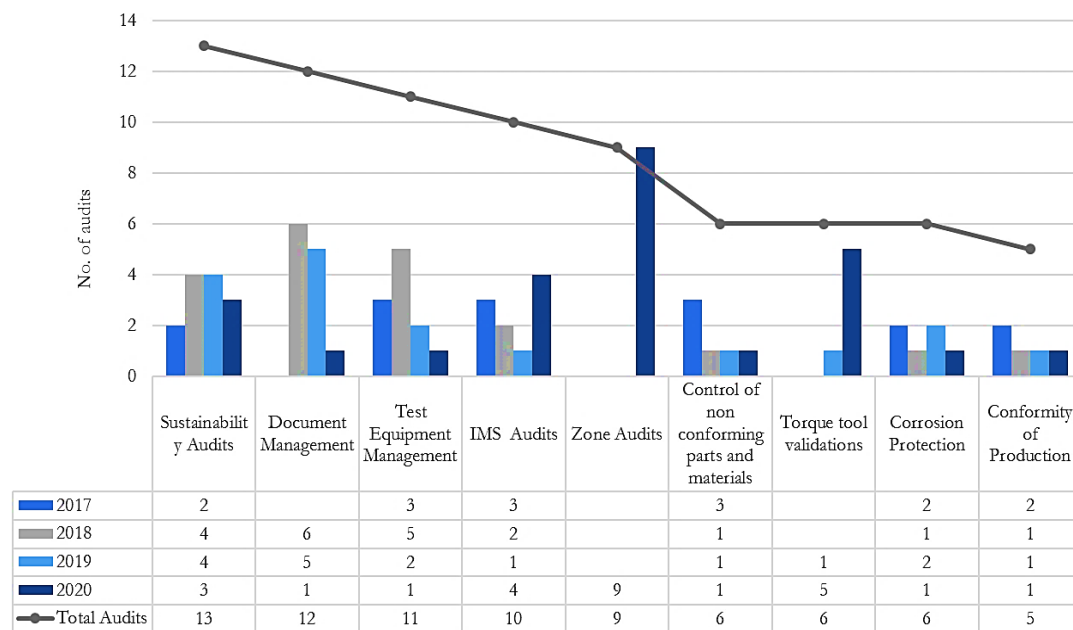


Fig. 6. Trending audit topics in Company XYZ's annual audit programs (2017-2020).

4.1.3 | Audit program frequency determinants

The audits in *Fig. 6*, conducted annually by the same auditors, were prompted by external quality audit non-conformities. Deductions from these observations and the best practice audits in the literature show

that repeating conformity-driven audit programs for an extended period will lead to audit paralysis. Audit results will be predictable and will cease to reveal meaningful and beneficial insights [14].

4.2 | Key Audit Program Implementation Determinants

Internal audit reports at company XYZ showed that results from past audits, auditees' self-assessments, auditors' judgments, technical experts' knowledge, and document reviews influenced what will be audited. The company's audit programs were still reactive and sought to address previously identified non-conformities. The neglected: improving customer satisfaction; identifying future requirements; and identifying opportunities for improvements in product or service, timeliness, and cost reduction [12].

4.2.1 | Internal quality audit sampling methods

After identifying what is to be audited, the internal auditors of company XYZ relied on their judgment and the advice of technical experts to sample processes, areas, and materials to be audited. They also relied on the reviews of previous audit reports. With this arrangement, the auditors again focused on compliance with requirements rather than on continuous improvement. Audit sampling and auditor selection should occur based on data analysis [2], [3] to ensure that audit samples represent the population [2]. However, relying on random samples without the knowledge of the target processes is costly because the auditees continuously perform self-assessments and pre-audit checks before internal quality audits to comply with requirements. Hence, internal audits need to be information driven.

4.2.2 | Management of internal quality audit results

Between 2017 and 2020, 1882 audit findings were recorded in 162 internal quality audits. The audit findings included conformities, non-conformities, and opportunities for improvement. Audit findings related to ISO 9001 clauses included production control, service provision, compliance monitoring, measuring tools and equipment, document control, and competence management.

The distribution of the findings showed that: 51% were minor non-conformities, 31% were improvements, 10% were positive findings, and 8% were major non-conformities (Fig. 7).

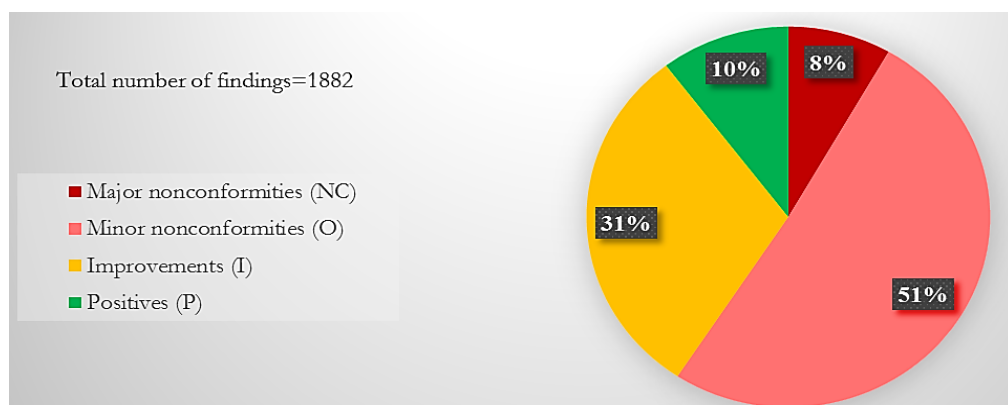


Fig. 7. Distribution of audit findings (NC O, I, and P) at company XYZ (2017-2020).

The sources of nonconformities were production, management reviews, and resource management. There was no clarity on how the auditees identified the root causes of the non-conformities. This led to the auditors rejecting the corrective actions put forward, thereby creating difficulties for the audit program to support the continual improvement objectives of the Company's ISO 9001 QMS.

Table 2. Example of an NC finding with inadequate root causes and corrective actions.

Category of Finding	Area & Implementation Deadlines	Result	Root Causes Actions (N/O only)	Status/Run Time (Days)
NC	Logistics 26/08/2019 30/08/2018	During the audits, information on the competency matrix was not provided.	Competency matrices were incomplete by May 1, 2019. There were no stand-in matrices in new departments.	Verified 67

Sustainability audits were conducted to enforce sustainable corrective actions. An example of a Non-Conformity (NC) finding with inadequate root causes and corrective actions is shown in *Tables 2 and 3* shows examples of NC findings with inadequate explanations provided by the auditors.

Table 3. Examples of NC findings showing inadequate reasons for successful verification.

Category of Finding	Area & Implementation Deadlines	Finding	Root Causes Actions (N/O only)	Proof of Verification
NC	Paint shop 28/07/2018 10/07/2018	The documented process did not conform to the publishing procedure of Company XYZ. The document was marked 'draft' and the owners of the process on the link document were incorrect.	The procedure was unknown.	Action verified 30/07/2018
NC	Body shop 09/06/2017 17/05/2017	The previous monthly destructive testing from the lab only showed in order rating of BI-8. The results from the analysis did not reflect the real condition of vehicles assessed during the audit.	Root cause: I trusted results from the lab, if there were any concerns from them, they would have approached us. Actions: The ratings will be changed for the better. Results will be queried if suspected to be incorrect.	Ok

Company XYZ's adherence to best practices was also questionable, as it downplayed the need for knowledge transfer to influence other areas to improve quality performance. It promoted the idea that the absence of nonconformities, implementing corrective actions, and fulfilling process requirements translated to best practices. Examples of such misleading findings are presented in *Table 4*.

Table 4. Examples of misleading reasons for logging some positive (P) findings.

Category of Finding	Area	Finding
P	Total vehicle quality	The current practice of driving the car after analysis offline poses a risk that the re-worker in the offline area will not capture all defects. The action was: to configure the IPS-Q station in the ATC workstation and also the office workstations in ATC offices with IPS-Q characteristics. This action is still sustained.
P	Assembly	The opening meeting was held with a presentation on what will be looked at during the audit. Target dates were discussed and agreed upon.
P	Purchasing	Audit schedule agreed as well as deadline dates.
P	Assembly	No findings during this audit session.

5 | Discussion

Company XYZ's audit objectives prepared the company for external quality audits; Alic and Rusjan argue that such companies maintain their ISO 9001 QMS to conform to requirements [27]. The company's audit program did not encompass customer focus and continuous improvement.

Company XYZ's excessive focus on conformity objectives underscores underlying problems in the QMS. There is a high likelihood of a lack of adherence to processes in various company departments [1].

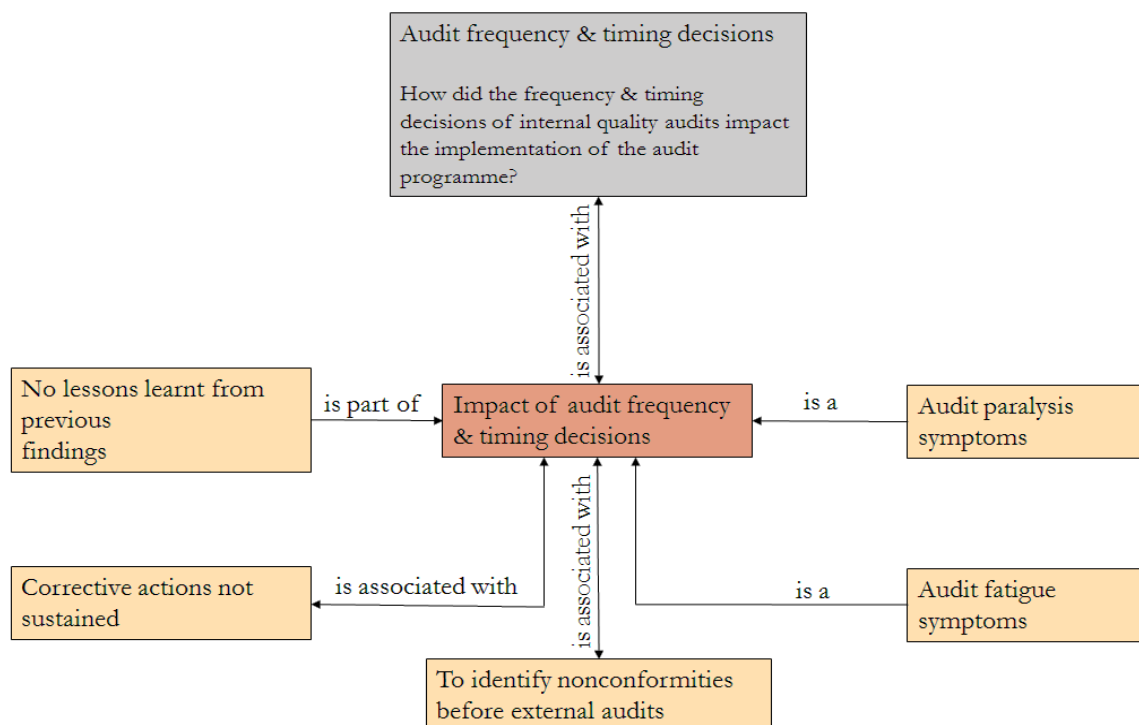


Fig. 8. Internal quality audit frequency and timing decisions (2017-2020).

The nonconformities form the basis for subsequent audit program plans. Company XYZ's focus on conformity objectives could be attributed to its desire to satisfy third-party audits.

Company XYZ's decisions on what is to be audited and on audit frequencies were determined by previous NC audit findings (Fig. 8). There are indications that some processes and systems were audited repeatedly while others were rarely. With this approach, processes with fewer or no audit nonconformities are not audited or improved [5]. Insufficient internal quality audits lead to an accrual of nonconformities; eventually, an institution will fail to meet conformity requirements for ISO 9001 QMS certification. On the other hand, excessive auditing leads to audit fatigue and excess auditing time. Too many internal quality audits also deny the company time to implement, control, and improve production processes and quality systems. This eventually leads to paralysis of the audit program.

Another issue that frustrates the internal audit program at company XYZ is the recurrence of audit findings. Nonconformities are not solved once and for all, and corrective actions are not implemented comprehensively. It appears that auditees do not learn from their experiences, and internal auditors repeatedly audit the same areas and processes whenever they conduct audits.

6 | Conclusion and Further Research

At a strategic level, the audits were segmented as system audits, process audits, and product audits. At an operational level, the auditors focused on 1) sustainability, 2) document management, 3) control of production conformity, 4) tools and test-equipment management, and 5) company documentation control.

These policies were developed to; stabilize production and quality metrics, support the company's preparedness for external quality audits, and maintain ISO 9001 compliance certificates. The audits did not adequately address continuous improvement and customer focus, however. Management encouraged the internal auditors to develop audit plans that responded to the outcomes of the previous external audits. Internal quality audits were preoccupied with enforcing conformity to ISO 9001 QMS standards. Consequently, the QMS at Company XYZ remains in a reactive stage and is yet to become proactive.

Recurring nonconformities and failure to attend to root causes hindered implementing sustainable corrective actions. The auditors relied on the personal judgment in sampling processes, products, and systems to be audited. Probability sampling techniques would give management a more astute bird's eye view of the overall performance of the audit process. Moreover, management would better understand how the ISO 9001 QMS is embraced throughout the company.

To elicit a full view of the determinants, further research should analyze all four segments of the audit program: planning, implementation, monitoring, reviewing, and improvement. This will give a more thorough view of the determinants. A better understanding of internal quality audit programs in automotive OEMs would be obtained if a sector-wide study was undertaken. This study's findings are restricted to audit program planning and implementation determinants at company XYZ.

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