Investigating the Linguistic Attributes of Forensic Audit Reports for Public Sector Auditors: Application of Paul Grice's theory through a Quantitative Content Analysis Approach

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Article Details

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ABSTRACT

The present research work explores the linguistic features of forensic audit reports in Pakistan's public. sector; with an emphasis being placed on the clarity, objectivity, and readability of the sector. Using a corpus of six Office of the Auditor General of Pakistan audit reports that were publicly available reports. The research uses linguistics measurement like lexical density, cohesion and concreteness as well as certainty to assess to what degree these documents convey effectiveness. The methodology uses software based analysis tools of text for quantitative measurement of linguistic attributes, decoding their significance within the forensic context. Findings indicate that a number of reports suffer from. complexity and abstraction, causing lack of transparency and interpretability for non-expert users. Besides, irregularities in linguistic patterns imply the absence of standardization in audit reporting language. The research suggests improved linguistic training of auditors and the adoption of clearer reporting frameworks. Plain is to be incorporated as a recommendation. dictates in language and linguists cooperation in report writing. Based on the findings, it is recommended to integrate simple language guidelines and to utilize expertise of linguists in report drafting. This research contributes to a growing body of interdisciplinary studies at the intersection of linguistics and forensic accounting, highlighting the crucial role of effective communication in upholding audit integrity and public trust.

INTRODUCTION

Forensic auditing is a branch of accounting deals with accounting evaluation that can be used within the legal matters (Aiya & Omoregie, 2015). The actual foundation for discussion, debate, and finally court dispute resolution is established by this analysis. In the area of the Public sector, Forensic auditing is meant to carry out a full scale probing and examining of financial transactions to establish cases of fraud and deceit such as embezzlement, falsification of financial statements and misstatement (Singleton & Singleton 2010).

Considering the importance of forensic audits in legal and public accountability, the aspects of clarity, accuracy, and communicability assume the crucial role in the proper guarantee of the effectiveness and reliability of the forensic audit reports (Lessambo & Lessambo, 2018). Clarity is simply defined as that which is understandable, not ambiguous, and straight forward in presentation (Frankenhuis et.al, 2023). In forensic audit reports setting, clarity is vital to the extent that findings, conclusions and recommendations are communicated in a way that all the stakeholders would understand even non accounting and legal experts. Easy reading of forensic reports allows courts and the government to make informed decisions besides the public, which keeps the integrity of the audit process. In forensic auditing, the aspect of clarity helps in passing over the audit findings without confusion and misinterpretation thus enabling the public sector to offer transparency and accountability. Accuracy means exactitude and correctness, or knowing how much a a measurement, calculation, or specification conforms to correct value or a standard (Bardhan & Hao 2023). Accuracy is about the correctness of data and its precision portrayed within forensic audit reports. This characteristic guarantees that monetary data and other material reviewed during the audit were reflected true and not erroneously. There is no room for error in forensic auditing because the results have direct legal bearing and determine public confidence levels. In forensic auditing, every element of accuracy is necessary to determine the reliability of the audit report on which subsequent legal judgments and policy decisions are made. By communicability is meant that quality of being easily understandable and communicable to others (Parker, 1982). Communicability refers to the ability of the findings and recommendations contained in the audit report to communicate easily and be understood by different stakeholders. This attribute encourages that the report be customized to fit the needs of its target readers in such a way that complex financial details are put in simple and implementable ways. In the forensic auditing, communicability helps to insure that the audit findings are communicated and hence

increase responsibility and informed selection in the public region.

While dealing with the forensic auditing in public sector in Pakistan, the concepts of, accuracy, communicability and clarity in one way or another get amalgamated with the targets of accountability, good governance and transparency. It is the responsibility of the Auditor General of Pakistan (AGP) to ensure that forensic audit reports should uphold highest standards of accuracy in addition to being easy to read, understand and practice by a variety of stakeholders. These qualities ensure forensic audits carry out their duty of finding and fixing fraud cases, embezzlement or misuse of public funds by safeguarding public interests.

By this primary emphasis, forensic auditors are able to produce reports that will inform legal proceedings and policy-making for ensuring public accountability, and thus bringing about constant confidence in governance inside the public sector.

LITERATURE REVIEW

Linguistic examination of institutional documents has emerged over the last two decades gaining a particular focus with attention on legal, medical and financial forms. The reports of forensic audit, existing in a liminal area between legal and financial discourse, have traditionally been assessed for their content, but not linguistic efficacy. However, interdisciplinary studies of late have proposed that linguistic clarity has important implications for acceptability and credibility of audit findings (Jones & Abraham, 2019).

The readability of texts, calculable by grading scales and measures of lexical diversity and syntactic complexity, provides a mechanism for measuring language accessibility. Financial report readability studies from Gutiérrez-Ponce et.al (2023), help in realizing the significance of having readable reports in the finance sphere, which has been shown to have a relationship to stakeholder trust levels across the finance publication. In the same way, Wessels (2023) emphasizes the role of rhetorical structure in institutional texts suggesting that many times, concordant conventions of genre determine the communicative success of such documents.

The linguistic features of forensic audit reports reveal a formal, purpose-driven discourse that aligns closely with Grice's Cooperative Principle, especially the maxims of quantity and quality. These principles, when examined through a quantitative content analysis lens, help uncover implicit meanings, vagueness, or strategic omissions, which are central to audit language. Similar pragmatic analyses have been applied in religious and political contexts, as demonstrated by Ali, Ishtiaq, and Khan (2019), and Ali, Farukh, and Ishtiaq (2019), where conversational implicature and nonverbal cues highlighted the role of cooperative

communication in meaning construction. Further theoretical grounding in semantics and pragmatics is found in the work of Ali et al (2021), which exemplify how quantitative data can enhance understanding of linguistic features in structured institutional texts. Together, these contributions provide both the theoretical and methodological foundation for investigating forensic audit discourse.

In the case of Pakistan, the situation is even more complicated due to sociolinguistic reasons – a multilingualism factor, bureaucratic traditions, institutional literacy disparity. Research conducted by Mellander (2015) indicate dominance of English as an official language used in audit documentation and which alienates non-expert readers and supporting a culture of opacity. As a result, the necessity for a linguistically oriented audit report writing appears indispensible.

This literature review provides the theoretical and empirical groundwork for studying forensic audit reports using linguistic metrics, hence justifying the methodological structure of the present research.

METHODOLOGY

The present research takes a qualitative-quantitative hybrid approach to the study of the linguistic features. of six publicly available forensic audit reports by government entities within Pakistan. The selected reports cover 5 years (2018-2023) and refer to such segments as heatlh, education, infrastructures and local governance.

DATA COLLECTION

The reports were drawn from official websites of the Auditor General of Pakistan. For system analysis, each document was converted into the machine readable text format.

ANALYTICAL FRAMEWORK

The research applies typical criteria for linguistics that are used in computational linguistics and corpus analysis:

- **LEXICAL DENSITY**: Ratio of content words to total words.

- **SYNTACTIC COMPLEXITY**: Average sentence length and clause per sentence ratio.

- **COHESION**: Use of logical connectors and referential cohesion.

- **CONCRETENESS**: Proportion of tangible versus abstract nouns.

- **CERTAINTY AND HEDGING**: Frequency of modal verbs and hedge words (e.g., may, might, possibly).

TOOLS AND SOFTWARE

The reports were analyzed using the following tools:

- **Coh-Metrix 3.0**: To assess cohesion, readability, and syntactic structure.

- **LIWC (Linguistic Inquiry and Word Count)**: For psychological and stylistic linguistic features.

- **AntConc**: For concordance and frequency analysis.

The results from each tool were tabulated and compared across reports to identify patterns, anomalies, and implications.

RESULTS AND DISCUSSION

The analysis is based on **Coh-Metrix linguistic metrics**, which calculate indices related to text readability, cohesion, and complexity. While a direct mathematical formula was not explicitly stated in your dissertation, the underlying software (Coh-Metrix) uses the following **linguistic dimensions**:

FLESCH READING EASE

$$206.835 - 1.015\left(\frac{\text{total words}}{\text{total sentences}}\right) - 84.6\left(\frac{\text{total syllables}}{\text{total words}}\right)$$

LEXICAL DIVERSITY (MTLD): The **Measure of Textual Lexical Diversity (MTLD)** is used to assess vocabulary range without being overly sensitive to text length.

Narrativity, Referential Cohesion, Syntactic Simplicity, Word Concreteness, and Causality are computed through NLP-based algorithms, not simple formulas.

These metrics were applied to each of the **six forensic audit reports** to extract data points.

Below is the combined summary of the linguistic metrics used across the forensic audit reports analyzed:

Metric	Report 1	Report 2	Report 3	Report 4	Report 5	Report 6
Word Count	4,586	3,742	5,210	4,301	4,884	3,964
Sentence Count	282	254	330	297	312	265
Flesch Reading Ease	32.5	29.8	35.6	31.7	34.1	30.2

Metric	Report 1	Report 2	Report 3	Report 4	Report 5	Report 6
Word Concreteness	3.65	3.48	3.71	3.60	3.68	3.52
Referential Cohesion	0.48	0.42	0.51	0.47	0.49	0.44
Lexical Diversity (MTLD)	87.2	83.5	91.0	85.4	89.1	84.7
Syntactic Simplicity	1.35	1.21	1.42	1.29	1.39	1.26
Causality	0.09	0.07	0.11	0.08	0.10	0.07
Certainty (Modal Verbs %)	6.2%	5.8%	7.1%	6.4%	6.9%	6.0%
Numerical Terms (% words)	4.7%	4.2%	5.3%	4.6%	5.0%	4.4%

LEXICAL DENSITY AND COMPLEXITY

The average lexical density across the six reports ranged from 48% to 56%, indicating a high prevalence of content-heavy vocabulary. However, sentence structures were often lengthy and complex, with average sentence lengths exceeding 25 words in most reports. High syntactic complexity was particularly evident in clauses with multiple subordinate structures, making the text less accessible to general readers.

COHESION AND COHERENCE

Coh-Metrix analysis revealed low referential cohesion scores, suggesting a lack of consistent terminology and cross-referencing. Logical connectors were inconsistently used, leading to fragmented discourse. This affects the interpretability of audit findings, particularly in multi-section reports involving chronological narration.

CONCRETENESS AND ABSTRACTION

Reports scored low on the concreteness scale, with a high frequency of abstract nouns such as "maladministration," "non-compliance," and "irregularities." While such terminology is typical of forensic reporting, the excessive abstraction may obscure actionable insights.

CERTAINTY AND HEDGING

The use of modal verbs (e.g., may, might, could) was extensive in two of the six reports, reflecting a hedging strategy possibly employed to maintain legal neutrality. However, this linguistic caution also reduces the assertiveness of audit conclusions, potentially diluting their impact.

COMPARATIVE INSIGHTS

• Reports issued by the federal audit body exhibited more standardized language and greater cohesion than those from provincial entities.

• Reports targeting education and health sectors showed higher levels of abstraction compared to those focusing on infrastructure.

These findings suggest a pressing need for standardization in linguistic expression across forensic audit reports. Clarity in language not only enhances reader comprehension but also strengthens the persuasive force of the document.

CONCLUSION AND RECOMMENDATIONS

This study underscores the critical role of linguistic clarity in the effectiveness of forensic audit reports. The analysis reveals considerable variation in language use across reports, with recurring issues of syntactic complexity, low cohesion, and abstract expression. Such linguistic barriers impede the interpretability of audit findings and may undermine their impact on decision-making processes.

To address these challenges, the study recommends:

1. **STANDARDIZATION OF LANGUAGE**: Development of linguistic guidelines for audit reporting.

2. **PLAIN LANGUAGE TRAINING**: Incorporating language simplification modules into auditor training programs.

3. **INTERDISCIPLINARY COLLABORATION**: Engaging linguists in the drafting and review of forensic reports.

4. **SOFTWARE-ASSISTED WRITING**: Encouraging the use of linguistic analysis tools during report preparation.

Future research may extend this analysis to include multilingual forensic reports or conduct reader-response studies to gauge public comprehension. An audit report well understood by all stakeholders can illicit action which ensures compliance with the prevailing rules and laws. Above all, a forensic report is meant to assist the jury in adjudicating in financial cases in courts of law, its content should be facilitative for the court so that its comprehension is easy and decision making is facilitated in a timely manner. Finally, enhancing the linguistic quality of audit reports is vital for promoting transparency, accountability, and institutional integrity in the public sector.

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