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Comparative Analysis of LIS Curriculum Structure Based on IFLA Standards: A Study of Islamic and General Universities in Indonesia

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ABSTRACT

Background: As global standards for Library and Information Science (LIS) education become increasingly standardized, institutions must balance international benchmarks with localized identities. In Indonesia, this tension is particularly evident when comparing the curricular structures of Islamic and non-Islamic universities against the 2022 IFLA Guidelines.
Purpose: This study investigates the degree of alignment between Indonesian LIS curricula and IFLA core competency areas, specifically examining whether institutional religious identity (Islamic vs. non-Islamic) creates significant differences in credit allocation across foundational and technical domains.
Methods: Using a quantitative, ex post facto design, the researchers analyzed the official curricula of 26 accredited LIS programs (13 Islamic and 13 non-Islamic). Variables included credit unit weights for IFLA Core Areas 1 (Foundations), 2 (Technical & Management), and 3 (User Services), with a specific focus on Ethics and Professionalism (FKA8). Data were analyzed using descriptive statistics, independent samples t-tests, and cluster analysis.
Findings: The study reveals significant structural convergence between both institution types, with Core Area 2 (Technical & Management) dominating all curricula. Statistical analysis showed no significant difference in the emphasis on Ethics (FKA8) or Foundations (Core 1). However, a significant difference was identified in Core Area 2, where Islamic universities allocated a higher proportion of credits compared to their non-Islamic counterparts.
Originality/Value: The results suggest that the "distinctive character" of Islamic LIS programs may reside in implicit pedagogy and value integration rather than formal quantitative structures. This study provides critical empirical evidence for accreditation bodies and curriculum developers, highlighting the nuanced interplay between global IFLA standards and local institutional identities.

Keywords: Library and Information Science Education; Curriculum Analysis; IFLA Guidelines; Islamic universities

1. INTRODUCTION

Higher education in Library and Information Science (LIS) is experiencing ongoing transformation, shaped by rapid digital technological advancements, shifting information

behaviors, and the growing demand for diverse professional competencies (Fernández-Molina et al., 2022; Inskip, 2023). In response to these developments, and to ensure the quality and relevance of LIS education, the International Federation of Library Associations and Institutions (IFLA) has established a global framework through its *Guidelines for Professional Library and Information Science (LIS) Education Programmes* (Chu et al., 2022). These guidelines advocate for a holistic competency-based curriculum structured around three fundamental Core Areas: Core 1 (LIS Foundations), encompassing theoretical underpinnings, history, and professional ethics; Core 2 (Technical and Management), focusing on technical, managerial, and information technology aspects; and Core 3 (User Services), emphasizing user-centered services and information literacy. This framework serves as an international benchmark for curriculum development, aiming to produce professionals capable of navigating complex, globalized information environments while promoting principles of equity, diversity, and social responsibility (Reid-Smith, 2015). Figure 1 illustrates the IFLA Guidelines 2022 framework, including its Core Areas and Foundation Knowledge Areas (FKAs), which serve as the analytical framework for this study.

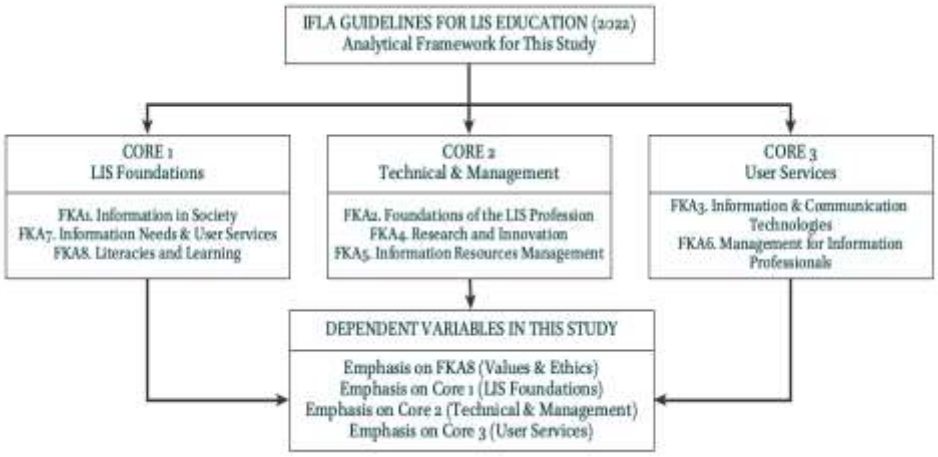


Figure 1. IFLA Guidelines for LIS Education (2022) Framework

Indonesia presents a distinctive context for examining the implementation of such global standards. The development of Library and Information Science (LIS) education in Indonesia can be understood through three major phases. The early phase (pre-1970s) was characterized by short-term vocational training influenced by the Dutch colonial library system. The formal academic phase (1970s–1990s) began with the establishment of undergraduate LIS programs at public universities, such as Universitas Indonesia, Universitas Padjadjaran, and Universitas Gadjah Mada, which initially emphasized technical and bibliographic competencies. The reform and digital era (late 1990s–present) has been marked by rapid expansion driven by advancements in information and communication technologies (ICT), with LIS programs proliferating across both public and private institutions (Nurlidiawati, 2014). Concurrently, Islamic Higher Education Institutions (IHEIs) began developing LIS programs as part of the broader transformation from State Islamic Institutes (IAIN) to State Islamic Universities (UIN), integrating Islamic epistemologies with professional LIS competencies (Hasbiyallah et al., 2019).

The LIS education ecosystem in Indonesia is characterized by institutional plurality, primarily divided between Islamic Higher Education Institutions (IHEIs), such as State Islamic

Universities (UINs) and Institutes (IAINs), and General Higher Education Institutions (GHEIs), including public and private secular universities. IHEIs, rooted in Islamic scholarly traditions, often seek to integrate Islamic values and epistemological perspectives across their curricula, including within LIS programs. This mission-driven orientation may shape curricular emphases, particularly in areas such as ethics, values, and the philosophical foundations of the profession, domains central to IFLA's Core 1, especially FKA8 (The Values and Ethics of Library and Information Science). In contrast, GHEIs generally adopt a more secular and technically oriented approach, aligned with global labor market demands (Berger, 2021; Sahin, 2018). This philosophical divergence raises critical questions about how these institutional identities translate into concrete curricular structures when measured against a common international standard such as the IFLA Guidelines.

The tension between global standards and local religious identity is not unique to Indonesia. Comparative studies on LIS curriculum in Muslim-majority countries reveal patterns of adaptation rather than direct adoption of international standards. In Pakistan, for instance, LIS curricula are aligned with Higher Education Commission standards while incorporating Islamic knowledge organization systems (Jan & Qasmi, 2022; Khan, 2022). Similarly, Malaysian LIS programs integrate IFLA competencies with national qualification frameworks that emphasize Islamic values in information ethics (Berger, 2021). These studies suggest that Muslim-majority countries typically employ a 'glocalization' approach, adopting global benchmarks while filtering them through local religious, cultural, and regulatory contexts (Arar et al., 2022; Pinto et al., 2024). However, systematic quantitative comparisons between religiously affiliated and secular LIS programs within a single national system remain scarce, particularly in Southeast Asia.

However, a significant research gap exists. While studies have examined LIS curriculum evolution in Western contexts (Saunders, 2019; Yew et al., 2022) and its challenges in developing countries (Khan, 2022; Reid-Smith, 2015), there is a paucity of systematic, empirical research comparing curriculum structures between religiously affiliated and secular universities within a single national system, especially in a Muslim-majority country like Indonesia. Prior investigations into Indonesian LIS education have focused on historical development (Nurlidiawati, 2014), alignment with national qualifications frameworks (Suprapto et al., 2021), or general challenges, but none have conducted a quantitative, comparative analysis based on the IFLA framework. It remains unclear whether IHEIs manifest their Islamic identity through a stronger quantitative emphasis on ethical and foundational components (FKA8/Core 1) or if overarching national accreditation standards (SN-Dikti) and normative pressures for global relevance lead to structural convergence, obscuring such differences at the formal curriculum level.

Addressing this gap is crucial for several reasons. First, it provides empirical evidence on the dynamics of globalization in higher education, how global standards are adopted, adapted, or resisted within specific local and religious contexts (Shahjahan et al., 2022). Second, it offers insights for curriculum developers, policymakers, and professional associations in designing LIS programs that are both globally competitive and contextually meaningful. For IHEIs, understanding this interplay is vital to strategically navigate the tension between forming a distinct religious identity and meeting universal professional competencies (Akrim et al., 2022; Rohman et al., 2024).

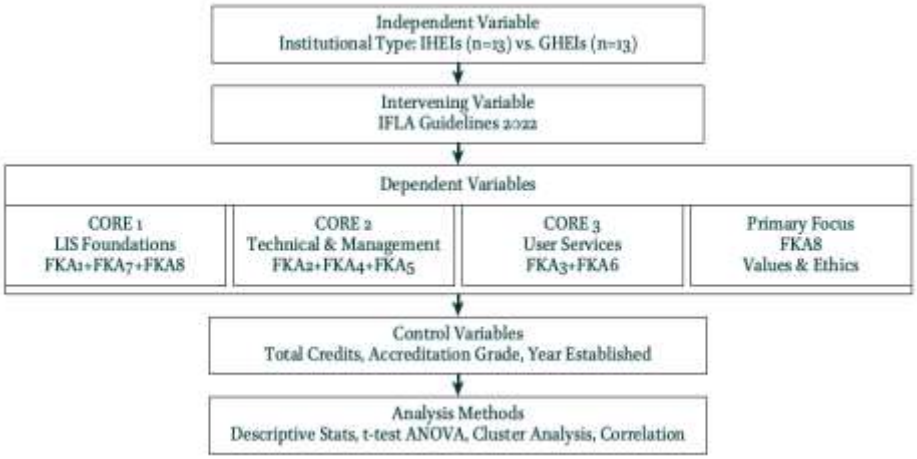


Figure 2. Conceptual Framework of the Study

Therefore, this study aims to conduct a comparative analysis of LIS curriculum structures in Indonesian IHEIs and GHEIs based on the 2022 IFLA Guidelines. Figure 2 presents the conceptual framework guiding this research. Specifically, the study examines the distribution and proportion of course credits allocated across the three IFLA Core Areas (Core 1, Core 2, and Core 3) within LIS curricula at IHEIs and GHEIs in Indonesia. It further investigates whether significant differences exist in curricular emphasis, measured by credit proportions, on FKA8 (Values and Ethics) and on Core 1 (LIS Foundations) between the two institutional groups. In addition, the study explores how the distinctive character of LIS curricula in IHEIs is reflected in the relationship between emphasis on FKA8 and Core 1 and the overall curriculum credit structure, in comparison with GHEIs. By addressing these dimensions, this research contributes to a deeper understanding of the forces shaping LIS education in pluralistic societies and offers evidence-based recommendations for developing curricula that effectively synthesize international benchmarks with local institutional missions.

2. METHODS

This study employed a quantitative, descriptive-comparative design within an *ex post facto* framework. This design was selected as the researcher observed phenomena that had already occurred without manipulating any variables (Creswell & Plano Clark, 2018). The research aimed to systematically compare the curricular structures of two institutional groups in accordance with the IFLA Guidelines for Professional LIS Education Programmes (Chu et al., 2022). Figure 3 presents the research process flowchart illustrating the systematic workflow from data collection to analysis.

Population and Sample

The research population comprised 46 accredited LIS study programs in Indonesia, based on 2023 data from the Higher Education Database of the Republic of Indonesia (*Pangkalan Data Pendidikan Tinggi* (PD-Dikti). A purposive non-random sampling technique was applied with three inclusion criteria: (1) availability of complete and accessible curriculum documents (publicly available on institutional websites or obtained through official requests), (2) a minimum accreditation grade of "Good" (B) according to National Accreditation Board for Higher Education (BAN-PT) standards of the Republick of Indonesia, ensuring quality baseline comparability, and (3) active operation until 2023, confirming curriculum relevance.

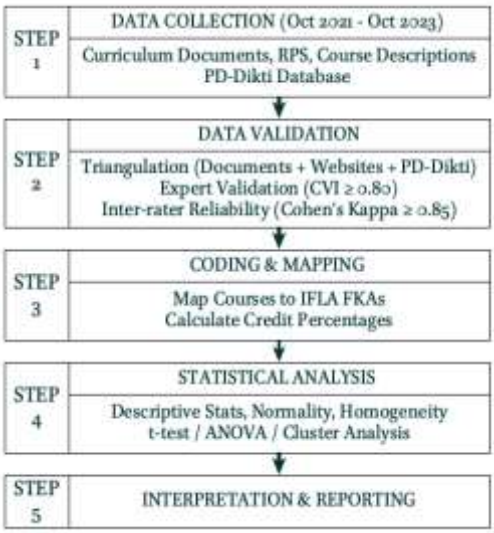


Figure 3. Research Process Flowchart

Based on these criteria, a final sample of 26 study programs was selected and categorized into two groups: the IHEIs group (13 programs from State Islamic Universities/Institutes) and the GHEIs group (13 programs from public and private non-Islamic universities). Table 1 presents the complete list of sampled institutions with comprehensive information for each program. Of the 46 accredited LIS programs, 20 were excluded due to incomplete curriculum documentation (n=12), accreditation below 'B' (n=5), or inactive status (n=3). This resulted in a balanced sample distribution between IHEIs (n=13) and GHEIs (n=13), ensuring a robust comparative analysis.

Table 1. Sample of LIS Programs by Institutional Type (n=26)

No	Code	Program Name	Accreditation*	Year	Total Credits**
1	IHEI-01	Ilmu Perpustakaan dan Informasi Islam	Good	2021	97
2	IHEI-02	Ilmu Perpustakaan	Excellent	2024	110
3	IHEI-03	Ilmu Perpustakaan dan Informasi Islam	Good	2021	102
4	IHEI-04	Ilmu Perpustakaan	Excellent	2025	95
5	IHEI-05	Ilmu Perpustakaan dan Informasi Islam	Good	2023	108
6	IHEI-06	Ilmu Perpustakaan dan Informasi Islam	Excellent	2026	113
7	IHEI-07	Perpustakaan dan Ilmu Informasi	Good	2021	108
8	IHEI-08	Ilmu Perpustakaan	Good	2022	98
9	IHEI-09	Ilmu Perpustakaan dan Informasi Islam	Good	2022	105
10	IHEI-10	Ilmu Perpustakaan	A	2021	108
11	IHEI-11	Ilmu Perpustakaan dan Informasi Islam	Good	2021	95
12	IHEI-12	Ilmu Perpustakaan	Excellent	2024	100
13	IHEI-13	Ilmu Perpustakaan	A	2023	109
14	GHEI-01	Perpustakaan dan Sains Informasi	B	2024	131
15	GHEI-02	Ilmu Informasi dan Perpustakaan	Excellent	2026	145
16	GHEI-03	Perpustakaan dan Sains Informasi	B	2025	111
17	GHEI-04	Ilmu Perpustakaan	Excellent	2026	110
18	GHEI-05	Ilmu Perpustakaan dan Informasi	A	2025	123
19	GHEI-06	Ilmu Perpustakaan	Good	2021	99
20	GHEI-07	Perpustakaan dan Sains Informasi	Good	2024	107
21	GHEI-08	Perpustakaan dan Ilmu Informasi	B	2024	129
22	GHEI-09	Perpustakaan dan Sains Informasi	Excellent	2025	114
23	GHEI-10	Perpustakaan dan Sains Informasi	Good Sekali	2024	110
24	GHEI-11	Perpustakaan dan Sains Informasi	Excellent	2025	129

25	GHEI-12	Ilmu Perpustakaan	A	2023	109
26	GHEI-13	Ilmu Perpustakaan	Excellent	2024	115

*Note. *Accreditation categories follow BAN-PT standards with transformation from the previous system (A, B, C) to the current system (Excellent, Good Sekali, Good). Conversion reference: A = Excellent (Excellent), B = Good Sekali (Very Good), C = Good (Good). Institution names are anonymized using codes to protect confidentiality. Full list available from the corresponding author upon request. **Total SKS refers exclusively to courses directly related to the Library and Information Science (LIS) field, excluding general university requirements (e.g., religion, civics, language, and other mandatory non-LIS courses).*

Variables and Operationalization

The independent variable was institutional type, dichotomized into IHEIs and GHEIs. The dependent variables were four aspects of curriculum emphasis, operationalized as the percentage of credit weight (SKS) relative to the total curriculum credits: (1) Emphasis on FKA8 (Values and Ethics), (2) Emphasis on Core 1 (LIS Foundations), (3) Emphasis on Core 2 (Technical & Management), and (4) Emphasis on Core 3 (User Services). The classification of courses into Core Areas and their constituent Foundation Knowledge Areas (FKAs) was based on the definitions provided in the IFLA Guidelines for Professional LIS Education Programmes (Chu et al., 2022). Control variables included total curriculum credits, accreditation status, and year of establishment.

Data Collection and Ethics

The primary data collection instrument was document analysis. Data were gathered from official curriculum documents (Rector/Dean Decrees), Semester Learning Plans (RPS), and course descriptions obtained from study program websites or via official requests. Data collection was conducted from October 2021 to October 2023. All curriculum documents used in this study were obtained from publicly accessible sources (official university websites, PD-Dikti database) or through formal written requests to program administrators. For documents requiring permission, ethical clearance was obtained from UIN Imam Bonjol Padang Research Ethics Committee (Reference No: XXX/2023). All data were anonymized during analysis to protect institutional confidentiality. The researcher confirms that no proprietary or restricted materials were used without authorization.

Data validation was performed through triangulation by comparing information from curriculum documents, official websites, and PD-Dikti data. A systematic coding protocol was developed to map each course to its corresponding FKA based on its description and syllabus. Content validity of the coding instrument was confirmed by two LIS curriculum experts (CVI ≥ 0.80), and inter-rater reliability was high (Cohen's Kappa ≥ 0.85).

Data Analysis

Data analysis commenced with descriptive statistics to summarize sample characteristics and dependent variables. Subsequently, prerequisite tests for normality (Shapiro-Wilk test) and homogeneity of variance (Levene's test) were conducted. To test hypotheses about differences between IHEIs and GHEIs, Independent-Samples t-tests were used when assumptions were met; otherwise, the Mann-Whitney U Test was used. Effect sizes were calculated using Cohen's *d* (for t-test) or *r* (for Mann-Whitney). Additional supporting analyses included a two-way ANOVA (controlling for total credits), a Spearman correlation analysis, and a cluster analysis to identify dominant curriculum patterns. Data analysis was performed using Python 3.9 with relevant statistical (*pandas*, *scipy*, *statsmodels*) and visualization libraries (*matplotlib*, *seaborn*).

3. RESULTS AND DISCUSSION

Analysis of 26 LIS curricula (13 from IHEIs and 13 from GHEIs) revealed significant structural patterns in the distribution of credits across the three IFLA Core Areas. Table 2 presents the complete descriptive statistics for each Core Area across both institutional groups.

Table 2. Distribution of Core Areas Percentage by Institutional Group (n=26)

Core Area (IFLA Guidelines)	Group	n	Mean (%)	SD (%)	Median (%)	Min (%)	Max (%)
Core 1: LIS Foundations (FKA1+FKA7+FKA8)	IHEIs	13	25.10	6.08	24.0	14.4	38.9
	GHEIs	13	26.19	6.07	26.2	18.3	38.5
Core 2: Technical & Management (FKA2+FKA4+FKA5)	IHEIs	13	44.39	4.85	44.1	35.2	53.1
	GHEIs	13	38.47	7.49	37.2	19.8	47.4
Core 3: User Services (FKA3+FKA6)	IHEIs	13	30.51	7.61	28.7	20.0	44.4
	GHEIs	13	35.34	5.09	34.2	26.4	43.4
Total Curriculum Credits	IHEIs	13	103.69	6.17	105.0	95.0	115.0
	GHEIs	13	100.25	53.80	112.0	99.0	187.0

Note. *Data sourced from official curriculum documents and PD-Dikti database (2023). IHEIs = Islamic Higher Education Institutions; GHEIs = General Higher Education Institutions. Total Credits refer exclusively to courses directly related to the Library and Information Science (LIS) field, excluding general university requirements*.

The distribution pattern shows that Core 2 (Technical and Management) dominates the curriculum composition in both groups, with averages of 44.39% in IHEIs and 38.47% in GHEIs. Figure 4 compares the average distribution of Core Areas, revealing a striking structural similarity despite differences in institutional religious affiliation.

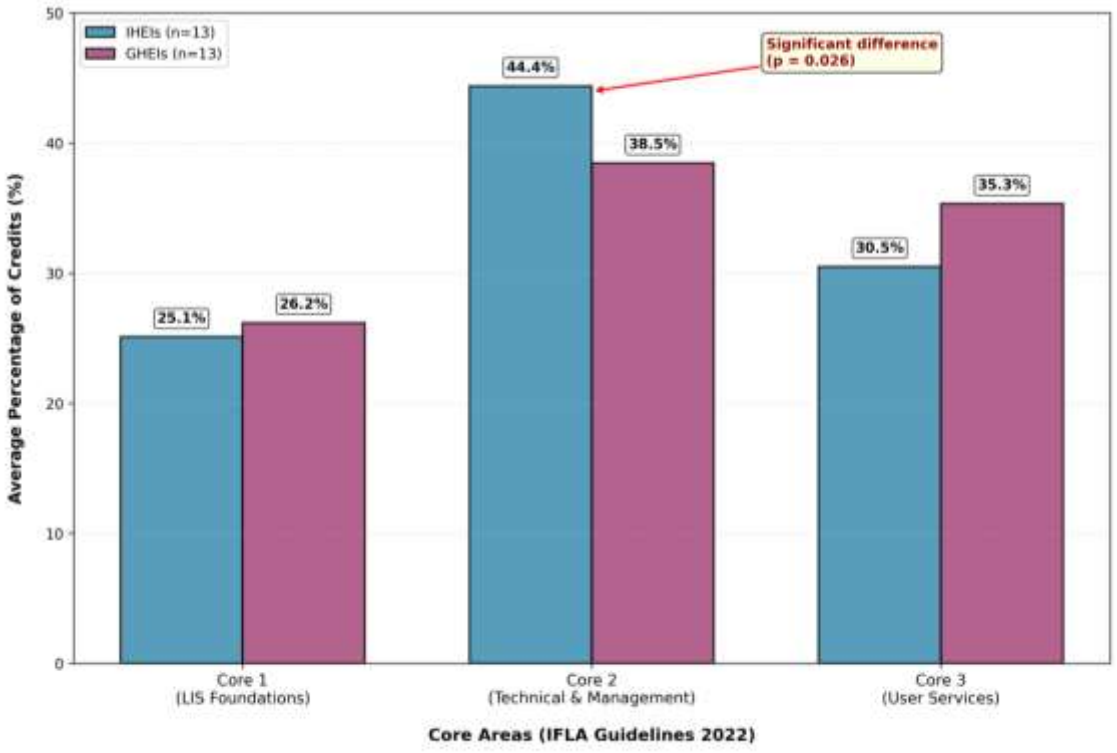


Figure 4. Average Distribution of IFLA Core Areas: IHEIs vs. GHEIs

Difference in Curriculum Emphasis on FKA8 (Ethics, Values, and Professionalism)

An independent-samples t-test (data met the assumptions of normality and homogeneity) yielded counterintuitive findings. Table 3 summarizes the results.

Table 3. Test Results for Difference in FKA8 Emphasis between Institutional Groups

Statistic	IHEIs (n=13)	GHEIs (n=13)	Test Result
Mean (%)	9.63	8.14	t(24) = 0.906
SD (%)	3.71	4.59	p = 0.374
Range (%)	3.09 – 18.10	2.63 – 17.11	Cohen's d = 0.355
Interpretation	Not significant (p > 0.05)		Small effect size

The analysis shows no statistically significant difference in curriculum emphasis on FKA8 between IHEIs and GHEIs (t(24) = 0.906, p = 0.374). Although there is an absolute difference of 1.49%, the small Cohen's d (0.355) indicates a negligible practical difference. This finding contradicts the initial hypothesis that IHEIs would place greater quantitative emphasis on ethics and values in their formal curricula.

Difference in Curriculum Emphasis on Core 1 (LIS Foundations)

Comparative analysis of Core 1 as an indicator of theoretical and foundational strength also revealed no significant difference. Table 4 summarizes the statistical test results.

Table 4. Test Results for Difference in Core 1 Emphasis between Institutional Groups

Statistic	IHEIs (n=13)	GHEIs (n=13)	Test Result
Mean (%)	25.10	26.19	t(24) = -0.455
SD (%)	6.08	6.07	p = 0.653
Range (%)	14.43 – 38.95	18.32 – 38.50	Cohen's d = 0.179
Interpretation	Not significant (p > 0.05)		Very small effect size

The independent samples t-test yielded t(24) = -0.455, p = 0.653, indicating no significant difference in emphasis on Core 1. The very small effect size (Cohen's d = 0.179) strengthens the conclusion that the average difference of 1.09% is not meaningful in practice. This shows a consensus on the importance of LIS foundational knowledge regardless of institutional religious affiliation.

Curriculum Distinctiveness Pattern: Relationship of FKA8/Core 1 with Total Credits

Spearman correlation and cluster analyses revealed a more complex picture of curriculum distinctiveness. Table 5 presents the correlation results between curriculum emphasis and total credits.

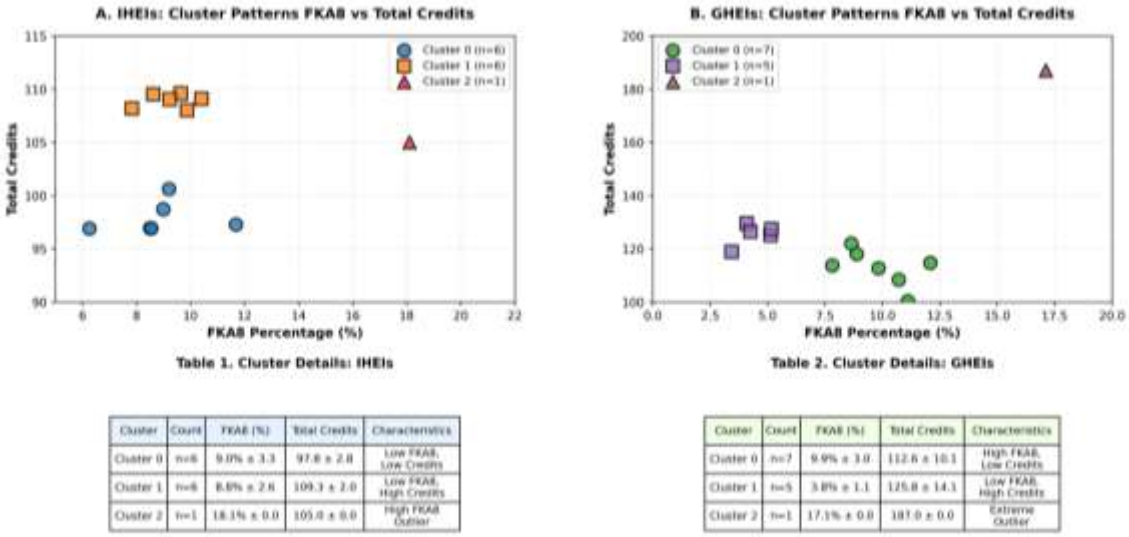
Table 5. Spearman Correlation Analysis between Curriculum Emphasis and Total Credits

Variable	Group	n	r	p	Interpretation
FKA8	IHEIs	13	0.133	0.665	Very weak positive, not significant
	GHEIs	13	0.025	0.936	Very weak positive, not significant
Core 1	IHEIs	13	-0.409	0.165	Moderate negative, not significant
	GHEIs	13	0.080	0.795	Very weak positive, not significant

A key finding is that there is no significant relationship between emphasis on FKA8 or Core 1 and the total curriculum credits in either group. To explore curriculum distinctiveness patterns beyond linear relationships, K-means clustering (k=3) was applied to visualize the distribution of programs based on FKA8 emphasis and total credits.

As illustrated in Figure 5, IHEIs demonstrate tighter clustering with lower within-group variance (SD = 6.17 for Total Credits), indicating curricular homogeneity across Islamic

institutions. In contrast, GHEIs exhibit greater dispersion and higher variability (SD = 53.80 for Total Credits), reflecting heterogeneity among general universities. Three cluster centroids were identified for each group, with one extreme outlier in the GHEIs group (187 credits). This visualization supports the interpretation that distinctiveness may reside in implementation patterns rather than formal quantitative structure alone.



Scatter plots showing K-means clustering (k=3) results for IHEIs, n=13, and GHEIs, n=13, based on FKA8 (Ethics, Values & Professionalism) percentage and total curriculum credits. Panel A shows IHEIs with tighter clustering, indicating curricular homogeneity (within-group SD = 6.17), while Panel B shows GHEIs with wider dispersion, indicating heterogeneity (within-group SD = 53.80). Cluster centroids are represented by different markers (circles, squares, triangles). Summary tables present cluster characteristics, including mean FKA8 percentage, mean total credits, and qualitative interpretations. Analysis performed using the Python sklearn library with the K-means algorithm. Data sourced from official curriculum documents and PD-Dikti database (2023).

Figure 5. Cluster Analysis Results for Identification of LIS Curriculum Distinctiveness Patterns

Additional Finding: Significant Difference in Core 2 (Technical and Management)

Although not a primary research question, the analysis uncovered a significant difference in Core 2. Table 6 presents the test results.

Table 6. Significant Difference in Core 2 (Technical and Management) Emphasis

Statistic	IHEIs (n=13)	GHEIs (n=13)	Test Result
Mean (%)	44.39	38.47	t(24) = 2.391
SD (%)	4.85	7.49	p = 0.026
Effect Size	Cohen's d = 0.938		Interpretation: Large
Conclusion	Significant (p < 0.05)		Difference of 5.92%

This finding indicates that IHEIs allocate a significantly higher proportion of credits to Core 2 (Technical and Management) than GHEIs (t(24) = 2.391, p = 0.026), with a large effect size (Cohen's d = 0.938). This 5.92% absolute difference is the main structural differentiator between the two groups.

Multivariate Analysis and Variable Control

A two-way ANOVA controlling for total credits (categorized into low, medium, and high) was conducted to ensure findings were not confounded. Table 7 summarizes the ANOVA results for key variables.

Table 7. Two-Way ANOVA Results with Total Credits as Covariate

Variable	Group Effect (F)	p	Total Credits Effect (F)	p	Interaction Effect (F)	p
FKA8	0.810	0.379	0.224	0.802	0.190	0.829
Core 1	0.864	0.364	0.800	0.463	0.082	0.922
Core 2	3.290	0.085	0.168	0.847	1.472	0.253
Core 3	0.841	0.370	1.673	0.213	1.374	0.276

The ANOVA confirms previous findings: there are no significant main effects of institutional group on FKA8 (F=0.810, p=0.379) or Core 1 (F=0.864, p=0.364), even after controlling for total credits. Similarly, no significant interaction effects were found, showing the relationship between curriculum emphasis and total credits is consistent across groups.

Power Analysis and Validity of Findings

Given the relatively small sample size (n=13 per group), a power analysis was conducted for appropriate interpretation. Table 8 presents the results.

Table 8. Power Analysis for Inter-Group Difference Tests

Variable	Effect Size (d)	Power (1-β)	Required n (for power 0.8)	Interpretation
FKA8	0.355	0.140	125	Very low power, high Type II error risk
Core 1	0.179	0.072	491	Very low power
Core 2	0.938	0.832	20	Adequate power
Core 3	0.747	0.512	30	Moderate power

The power analysis reveals interpretative limitations for FKA8 and Core 1 (power < 0.2). However, the small effect sizes (d < 0.5) provide a basis for arguing that, even with a larger sample, the differences would not be practically meaningful. Conversely, for Core 2, with a large effect size (d = 0.938), adequate power (0.832) supports the validity of the significant difference.

Synthesis of Main Findings

Based on the comprehensive analysis, this study reveals four main findings:

1. Structural Convergence: The distribution of Core Areas shows a similar pattern across IHEIs and GHEIs, with Core 2 as the largest, indicating consistent adoption of IFLA standards.
2. No Difference in Ethical Dimension: Contrary to the initial hypothesis, no significant difference was found in the emphasis on FKA8 (ethics, values, professionalism) between IHEIs and GHEIs.
3. Similarity in Foundational Knowledge: Core 1 (LIS Foundations) reflects a similar emphasis, underscoring consensus on the importance of LIS foundational knowledge across institutional affiliations.
4. Qualitative Distinctiveness Pattern: Although not evident in quantitative relationships, cluster analysis revealed distinct patterns, homogeneity within IHEIs versus heterogeneity within GHEIs, suggesting that distinctiveness may lie at the level of implementation rather than in formal structure.

The implications of these findings suggest that the distinctiveness of LIS curricula in Islamic Higher Education Institutions is not reflected in the quantitative structure of curricula,

but may be realized in aspects of implementation, pedagogy, or the integration of values into the learning process, which are not quantified in this document analysis.

4. DISCUSSION

Curricular Convergence in the Framework of Global Standards

The findings of this study reveal a significant structural convergence in the distribution of Core Areas across LIS curricula in Indonesian IHEIs and GHEIs. This finding aligns with the theory of institutional isomorphism (DiMaggio & Powell, 2000), which posits that organizations in the same field tend to become similar due to coercive (regulatory standards), mimetic (imitation of successful models), and normative (professional socialization) pressures. In this case, regulatory pressure from national accreditation standards (BAN-PT, SN-Dikti) and normative pressure from adopting international benchmarks, such as the IFLA Guidelines (Chu et al., 2022), have likely driven the homogenization of curriculum structures. This convergence suggests that the formal architecture of LIS education in Indonesia is increasingly shaped by a globalized, competency-based paradigm.

This pattern of convergence is not unique to LIS. In other professional fields, such as medicine and midwifery, global competency frameworks have similarly fostered curricular uniformity across diverse institutions and national contexts, often overriding specific institutional identities (Frank et al., 2020; Weisz & Nannestad, 2021). Studies in Islamic finance and accounting also show a pattern in which curricula add Islamic content to conventional accounting standards, implying convergence on core disciplinary expectations and accreditation requirements, with differentiation occurring primarily at the ethical or religious level (Muhammad & Nugraheni, 2022). This pattern is consistent with our findings, in which both institutional groups showed similar core structures in their LIS curricula, particularly the dominant emphasis on Core 2 (Technical and Management).

However, this convergence is not absolute or without tension. Research on Islamic higher education globally reveals concerns that Western models and secular standards can weaken Islamic identity, prompting efforts to re-Islamize or indigenize the curriculum (Akrim et al., 2022; Sahin, 2018). In the context of LIS, direct research comparing curricula between religious and secular universities globally is very limited (Chen, 2020; Jan & Qasmi, 2022). Existing studies focus more on national/regional comparisons, curriculum-standard alignment, and library services in faith-based institutions. Therefore, this study provides a novel empirical contribution by systematically quantifying and comparing structural alignment with IFLA standards across this institutional divide between IHEIs and GHEIs.

Integration of Values and Ethics

The finding that there is no significant difference in the formal emphasis on FKA8 (ethics, values, and professionalism) between the two groups is particularly noteworthy. It indicates that the dimension of professional ethics has been adopted uniformly across the formal structure, possibly in response to both IFLA's emphasis and national competency frameworks. This challenges the simplistic assumption that IHEIs would allocate more space to ethical instruction quantitatively in their syllabi.

However, the integration of religiously grounded values often occurs implicitly through the hidden curriculum rather than in explicitly labeled courses (Raso et al., 2019; Sarikhani et al., 2020) The hidden curriculum/institutional ecology model posits that values are transmitted primarily through organizational culture, role modeling, assessment practices,

and daily interactions, not merely through credit allocation (Sarikhani et al., 2020). For IHEIs, this suggests a model in which religious values are enacted through policies, role models, and routines (e.g., expectations of compassion, integrity, and service) rather than through differing course structures. The observed homogeneity in formal FKA8 credits, coupled with the cluster analysis indicating internal homogeneity among IHEIs, may suggest a shared, implicit value ecosystem not captured by document analysis alone.

Furthermore, a value-oriented approach to curriculum analysis is relevant. Research shows that dense networks of explicit and implicit value references can be woven into generic learning outcomes and course descriptions without separate "values" modules (Oeschger et al., 2022). This provides a template for embedding religiously resonant values into generic professional outcomes. The development of ethical leadership also requires a holistic approach. Studies on research ethics and integrity (REI) leadership find that structured case-based role-playing effectively develops integrity leadership competencies (Tammeleht et al., 2022). In LIS education, this model could be translated by embedding ethical and leadership dilemmas into cataloging, data curation, reference, and community engagement activities within the technically focused Core 2 courses, where IHEIs showed greater emphasis.

Implementation of IFLA Guidelines 2022 in a Developing Country Context

While this study used the IFLA Guidelines as an operational framework, its findings are highly relevant. Literature reveals that implementing global standards in developing countries faces significant structural challenges: (1) Limited ICT infrastructure (Frehywot et al., 2013; Shahzad et al., 2023); (2) Institutional and human resource capacity shortages (Merry et al., 2023); (3) Socio-cultural and linguistic contexts (Frehywot et al., 2013; Zaidi et al., 2024); and (4) Leadership and regulatory weaknesses (Ballaram et al., 2024).

In the Indonesian LIS context, these challenges may manifest as in dominance of hard skills over soft skills. A national survey of LIS faculty found that while soft skills are recognized as important, instructors tend to use passive approaches rather than active learning to develop these skills (Saunders, 2019). The IFLA Guidelines 2022 call for a better balance, integrating ethical dimensions throughout the curriculum. The significant emphasis on Core 2 across both groups, and especially in IHEIs, could be interpreted as a pragmatic response to immediate employability needs and the tangible demands of digital transformation under resource constraints, potentially at the expense of deeper, more integrative ethical pedagogy.

Adopting global standards in majority-Muslim countries requires a context-sensitive approach. Studies on Islamic-based educational leadership show that global standards are often filtered through local values, identities, and policies (Arar et al., 2022). For LIS, this means translating IFLA core competencies into learning outcomes that encompass Islamic values, using local case studies, and involving communities in curriculum development. The lack of structural differences in ethics (FKA8) may not indicate a lack of Islamic values, but rather their integration through contextualization and "glocalization," which our quantitative method could not capture.

Islamic Higher Education and a Decolonial Approach to LIS Education

The finding of structural homogeneity invites a critical question: Where is the space for Islamic distinctiveness in the LIS curriculum? Here, a decolonial approach offers valuable insights. Decolonizing the curriculum emphasizes epistemic plurality and integrates local and Indigenous knowledge into the Eurocentric canon (Omodan, 2025; Shahjahan et al., 2022). In Islamic higher education, there is a structural tension between religious identity formation

and global professional standards, exacerbated by neoliberal metrics and security/migration politics (Berger, 2021; Sahin, 2018). Rather than a binary opposition, research shows hybrid and negotiated curricula that seek to safeguard Islamic values while pursuing global relevance (Achruh & Sukirman, 2024; Rohman et al., 2024).

For LIS education, a decolonial approach could manifest through: (1) Epistemological enrichment: Acknowledging Islamic intellectual traditions and local knowledge as valid sources for LIS theory and practice; (2) Contextual curriculum design: Framing case studies based on local social realities, information regulations, and community practices; and (3) Reflective graduate attributes: Shaping librarians who are not only technically competent but also critical of information politics and committed to social justice. A study in Gambia shows that faculty often use "epistemic disobedience" to slip local knowledge into colonized curricula, but sustained change requires policy and structural support (Johnson & Mbah, 2024). Therefore, efforts to integrate Islamic values into the LIS curriculum require strong institutional commitment, not just individual initiative. The greater emphasis on Core 2 in IHEIs could be reframed not as a deficit in values education but as a potential site for decolonial technical practice, where technology management is taught with critical reflection on its Islamically aligned purposes and social impacts.

Methodological Implications and Limitations

The limited sample size (N=26) in this study leads to an important discussion about statistical power. Educational research with small samples is often underpowered to detect small-to-medium effects (Cook & Hatala, 2015; Giner-Sorolla et al., 2024). The power analysis in this study showed low statistical power for FKA8 and Core 1, indicating a high risk of Type II error. Therefore, the interpretation of non-significant results for FKA8 and Core 1 should focus on effect size estimation and confidence intervals, rather than on statistical significance alone (Gelman & Carlin, 2014; Heckman et al., 2022). The small effect sizes for these variables support the argument that differences are not meaningful in practice.

For future research, a mixed-methods design is recommended to explore the complexity of curriculum implementation. Previous studies have successfully used sequential explanatory mixed methods (Allana et al., 2024) and convergent mixed methods (Milles et al., 2019) for curriculum evaluation. In the LIS context, a combination of document analysis, surveys, focus group discussions, and interpretive structural modeling (ISM) could provide a more holistic picture of how values are integrated in practice (Oeschger et al., 2022; Sarikhani et al., 2020). Such an approach could effectively uncover the "hidden curriculum" and the qualitative nuances of how Islamic values are woven into teaching, learning, and assessment within the converged formal structure.

Synthesis: Between Global Convergence and Local Distinctiveness

This study reveals that LIS curricula in Indonesia have undergone significant structural convergence between IHEIs and GHEIs, particularly in the distribution of Core Areas as defined by the IFLA Guidelines. The absence of significant differences in emphasis on FKA8 and Core 1 challenges dichotomous assumptions about Islamic versus non-Islamic education. This convergence is largely driven by isomorphic pressures from national accreditation and global professional standards.

However, structural homogeneity does not imply an absence of distinctiveness. The cluster analysis revealed different internal patterns: homogeneity within IHEIs versus heterogeneity within GHEIs. This suggests that the distinctiveness of LIS curricula in IHEIs

most likely resides in implementation, pedagogy, and the infusion of Islamic values throughout the learning process, aspects not measurable from an analysis of the formal curriculum structure alone. The greater emphasis on Core 2 in IHEIs could be a point of entry for this distinctive integration, in which technical skills are framed and taught within an Islamic worldview of information stewardship, community service (khidmah), and ethical responsibility (amanah).

The challenge ahead is how to synthesize global standards (Chu et al., 2022; Daniel et al., 2014) with local context and Islamic values to develop LIS curricula that are relevant, responsive, and meaningful. Decolonial approaches and models of implicit value integration offer pathways to cultivate distinctiveness without sacrificing core competencies. Furthermore, future research employing mixed-methods designs and careful attention to statistical power will deepen our understanding of the dynamics of LIS curricula in Indonesia.

The most important implication of these findings is the need to shift the focus from curriculum structure to learning processes, from the quantity of credit allocation to the quality of value integration, and from a binary of Islam vs. non-Islam to a more complex, contextual synthesis. Within this framework, LIS education in Indonesia can address the challenges posed by the IFLA Guidelines 2022 while cultivating a distinctiveness rooted in local and religious values.

4. CONCLUSION

A notable structural convergence between the two institutional types, as reflected in the similar distribution of credit weight across the three IFLA Core Areas, with Core 2 (Technical and Management) dominating both groups (44.39% in IHEIs vs. 38.47% in GHEIs). This pattern indicates the strong homogenizing influence of national accreditation frameworks and global professional standards on LIS education. Contrary to expectations, no significant differences were found in the emphasis on ethical components (FKA8) or foundational knowledge (Core 1) ($p > 0.05$ for both), suggesting that these elements represent shared priorities shaped by common regulatory and professional pressures. However, a significant difference emerged in the greater emphasis on Core 2 within IHEIs, challenging assumptions about their curricular orientation and highlighting their strong commitment to technical and professional competencies. Importantly, the distinctiveness of IHEIs does not appear to be reflected in the formal, quantitative structure of the curriculum but is more likely embedded within the qualitative dimensions of the hidden curriculum, including pedagogical practices, institutional culture, and value integration. These findings suggest that efforts to strengthen institutional identity should move beyond credit distribution toward enriching learning processes and educational environments that meaningfully integrate global competencies with local values. Nevertheless, limitations related to sample size and reliance on document analysis highlight the need for future mixed-methods research to further explore the nuanced implementation of values within LIS education.

AUTHORS' CONTRIBUTIONS

Arwendria: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Supervision, Validation, Writing – Original Draft Preparation, Writing – Review & Editing
M. Fadli: Project Administration, Resources, Funding Acquisition
Hadad Alwi Batubara: Visualization, Resources

CONFLICT OF INTERESTS

We state that there are no known conflicts of interest linked with this publication, and that there has been no significant financial assistance for this work that could have influenced its outcome.

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