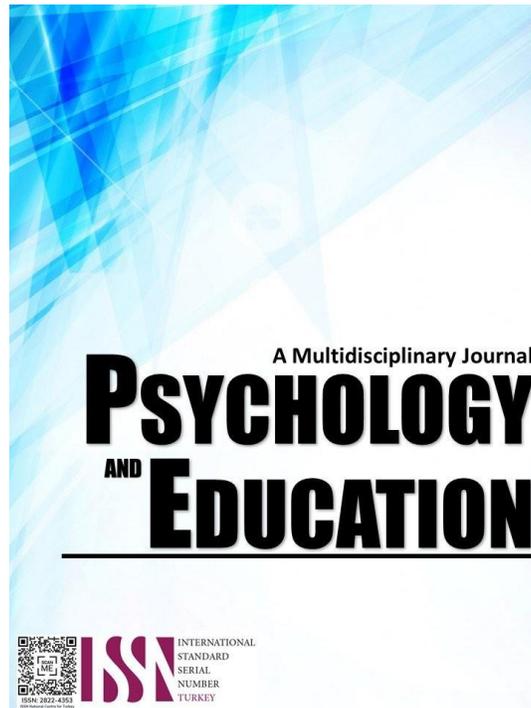# DIGITAL HALAL INFOGRAPHICS: A COMPARATIVE ANALYSIS OF EDUCATIONAL MATERIALS IN INDONESIA AND THE PHILIPPINES

Digital Halal Infographics: A Comparative Analysis of Educational Materials in Indonesia and the Philippines

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Abstract

Digital infographics have emerged as one of the most prevalent and effective means of visual communication in contemporary educational settings. This study critically examined the design elements, representation of the Islamic halal concept, and the informative utility of digital infographics within Islamic education across the Philippines and Indonesia. Employing a comparative mixed-methods research design, specifically using an explanatory sequential approach, the study analyzed 20 purposively selected infographics, which were evaluated by a diverse group of stakeholders, including educators, Islamic scholars, and graphic designers. The evaluation utilized Likert-scale assessments complemented by qualitative feedback, guided by established theoretical frameworks such as Semiotics, Dual-Coding Theory, and Information Design Theory. Quantitative data were gathered through Likert-scale assessments measuring four dimensions, and the instrument demonstrated excellent internal consistency ($\alpha = 0.923$). Qualitative data were collected through open-ended questions and analyzed thematically. Findings from both phases were triangulated to derive holistic conclusions, ensuring a coherent integration of numerical patterns and interpretive insights. Quantitative findings indicated a high overall effectiveness of the infographics in terms of visual clarity, accurate representation of Islamic concepts, cultural appropriateness, and educational usefulness. However, qualitative analyses revealed underlying tensions, particularly between the simplification of complex theological concepts and the need for doctrinal accuracy. Additionally, there was a noted necessity for greater cultural localization to move beyond predominantly Arab-centric imagery, thereby enhancing relevance for diverse Muslim audiences. The potential for increased educational impact through the integration of contextual explanations and multimedia elements was also highlighted. The study further uncovered divergent national priorities: Filipino respondents emphasized the importance of accessibility and inclusivity, whereas Indonesian participants prioritized doctrinal rigor and theological precision. In conclusion, the research suggests that effective halal infographic design necessitates a harmonious balance between visual clarity, accurate Islamic representation, and cultural relevance. It proposes comprehensive design guidelines that emphasize clean layouts, meaningful iconography, contextual explanations, and cultural sensitivity to optimize their educational utility across diverse learning environments.

Keywords: *digital halal infographics, islamic education, visual communication, philippines, indonesia, islamic concepts (Halal, Haram, Tayyib, Ahkam), educational usefulness*

Introduction

The increasing reliance on digital learning tools has transformed educational methodologies, making learning more interactive and visually engaging. Among these tools, infographics serve as a widely used method of visual communication, yet their application in digital halal learning materials remains underexplored. Existing studies often focus on halal economics, certification systems, or product branding, but few examine how Islamic principles like halal and tayyib are visually taught, especially in school settings. This study addresses that gap by comparing how infographics are used in Indonesia and the Philippines for educational purposes.

The global halal market was valued at USD 2.09 trillion in 2022 and is projected to reach USD 2.8 trillion by 2028 (Statista, 2023). This rapid growth underscores the increasing demand for halal literacy, particularly in industries such as food, cosmetics, and pharmaceuticals. As consumers and professionals seek greater halal awareness, the role of digital educational tools, including infographics, becomes increasingly significant. Research on infographics in education has shown that these visual tools enhance comprehension and engagement (Cifci & Elaldi, 2021; Kaya & Balta, 2022), but little has been done to evaluate their theological and cultural fidelity in Islamic contexts.

This study conducted a comparative analysis of how Indonesia and the Philippines use digital halal infographics in educational materials, focusing on visual design, informative use, and integration of Islamic halal key concepts. By examining how these visual tools are structured and applied, this research highlights the cultural, educational, and institutional factors that influence infographic development in both countries.

Research Questions

The study aimed to answer the following research questions:

1. To what extent is visual clarity and design effectively implemented in digital halal infographics?
2. To what extent is Islamic concept representation effectively implemented?
3. To what extent is cultural and religious appropriateness observed?

4. To what extent is educational usefulness perceived?
5. How do respondents' ratings differ between countries and categories?
6. How do experts perceive the interplay among the four dimensions?
7. Based on the findings, what design guidelines can be developed?

Methodology

Research Design

This study employed a mixed-methods approach using a comparative framework to analyze how digital halal infographics are used in educational materials from Indonesia and the Philippines. Specifically, the study followed an explanatory sequential design, where quantitative data were collected and analyzed first, followed by qualitative data to explain the patterns observed. This design allowed the researcher to assess infographic quality through expert ratings and then explore underlying reasons through expert interpretation. Mixed-methods research is particularly appropriate for cross-cultural comparative studies where numerical results benefit from contextual explanation (Plano Clark & Ivankova, 2016).

Respondents

The study was conducted entirely online and focused on two national contexts: Indonesia and the Philippines. A total of 24 experts were purposively selected, 12 from each country, including 10 educators, 8 Islamic scholars, and 6 designers or content creators. The population targeted consisted of professionals with expertise in halal education, Islamic scholarship, or infographic design. A sample of 24 was considered sufficient due to the depth of qualitative responses required and the focused nature of the visual evaluation. Indonesia, with its institutionalized halal education framework, provided structured infographics from agencies such as MUI and BPJPH. The Philippines, lacking a centralized system, offered more locally adapted infographic materials drawn from various educational initiatives. The infographic sets shown to experts were sourced from each respondent's respective country to ensure familiarity with the cultural context.

Instrument

Two instruments were used in this study: (1) a Likert-scale Visual Assessment Form and (2) a set of open-ended guide questions. The Likert-scale instrument assessed four domains: visual clarity and design, Islamic concept representation, cultural and religious appropriateness, and educational usefulness. It used a 5-point scale (1 = Strongly Disagree to 5 = Strongly Agree) and consisted of 16 items. The instrument's internal consistency was validated using Cronbach's Alpha, which yielded $\alpha = 0.923$, indicating excellent reliability. The second instrument consisted of qualitative questions designed to capture participants' insights on the strengths and weaknesses of the infographics. Both instruments were validated by four experts, two from each country, representing the domains of Islamic education, visual design, and values education.

Procedure

Twenty infographics—ten from each country—were curated based on four inclusion criteria: educational intent, cultural relevance, Islamic conceptual accuracy, and public availability. Participants were provided with access to the selected infographic sets and were asked to complete both a Likert-scale assessment and a qualitative questionnaire. To ensure clarity and accessibility for both national groups, the instruments were translated into English and Bahasa Indonesia and distributed via Google Forms. Responses were collected asynchronously over a two-week period to provide flexibility for the expert reviewers.

Data Analysis

Quantitative data were analyzed using descriptive statistics (mean, standard deviation) with JASP software to determine expert perceptions in each evaluation domain. The analysis was conducted at the infographic set level per country, not at the individual level. Qualitative responses were analyzed thematically. Coding followed an inductive process, and codes were grouped according to the four major evaluation domains. Themes were then compared across the two national groups to examine visual, cultural, and religious differences. Findings from both strands were integrated using triangulation, allowing the qualitative data to explain or expand upon quantitative patterns.

Ethical Considerations

This study adhered to standard ethical protocols for online research. All participants gave informed consent via a checkbox at the start of the form. No personal identifying information was collected, and all data was stored securely and accessed only by the researcher. The study received formal approval from the Graduate School Dean prior to data collection.

Results and Discussion

This section presents the integrated quantitative and qualitative findings of the study, organized by the four core dimensions defined in the conceptual framework: visual clarity and design, Islamic concept representation, cultural and religious appropriateness, and educational usefulness. Analysis draws from Likert-scale ratings and thematic expert commentary, enabling a nuanced comparison of

digital halal infographics from the Philippines and Indonesia.

Visual Clarity and Design

Experts across both countries consistently rated the visual clarity and layout of the infographics as effective. As shown in Table 1, the layout received the highest item score (M = 4.54, SD = 0.51), followed closely by overall aesthetic engagement (M = 4.54). These findings affirm the central role of clean structure, white space, and visual hierarchy in enhancing comprehension—key concepts in Information Design Theory (Pettersson, 2015) and Dual-Coding Theory (Paivio, 1971).

Table 1. *Mean Scores for Visual Clarity and Design*

Evaluation Item	Mean	SD	Interpretation
Layout is well-structured and easy to follow	4.54	0.51	Strongly Agree
Text is readable and free from clutter	4.38	0.65	Agree
Color choices enhance comprehension	4.38	0.58	Agree
Icons and visuals support the information	4.42	0.78	Agree
Overall aesthetic encourages engagement	4.54	0.51	Strongly Agree
Overall	4.45	0.61	Agree

Legend: 4.20–5.00 = Strongly Agree; 3.40–4.19 = Agree; 2.60–3.39 = Neutral; 1.80–2.59 = Disagree; 1.00–1.79 = Strongly Disagree.

Qualitative responses echoed this consensus. Participants praised minimalist layouts, spacing, and icon-text alignment. A Filipino educator emphasized, "Simpler layouts with enough spacing made the content easier to digest," while an Indonesian designer noted that color "facilitates comprehension and brings it closer to reality." These cross-national perspectives suggest that formal coherence (Indonesia) and contextual variety (Philippines) can coexist to support learner comprehension.

Islamic Concept Representation

Accurate depiction of Islamic principles was another strength, particularly for foundational terms such as halal and haram. Table 2 shows the highest rating was for the clarity of halal/haram definitions (M = 4.71), followed by avoidance of misinterpretation (M = 4.50). These results validate the effective use of semiotic elements (Peirce, 1931) in representing Islamic meanings.

Table 2. *Mean Scores for Islamic Concept Representation*

Evaluation Item	Mean	SD	Interpretation
Halal and haram are clearly defined	4.71	0.46	Strongly Agree
Tayyib is communicated clearly	4.33	0.56	Agree
Ahkam (Islamic rulings) are reflected accurately	4.42	0.50	Agree
Halal certification is explained clearly	4.38	0.65	Agree
Infographics avoid misinterpretation	4.50	0.59	Strongly Agree
Complex concepts are simplified without distortion	4.46	0.59	Agree
Overall	4.47	0.57	Agree

Legend: 4.20–5.00 = Strongly Agree; 3.40–4.19 = Agree; 2.60–3.39 = Neutral; 1.80–2.59 = Disagree; 1.00–1.79 = Strongly Disagree.

Experts emphasized the balance between simplification and doctrinal accuracy. An Indonesian designer remarked, "Some designs, such as PH10, are too simple and can lead to misunderstanding." Filipino respondents valued accessibility, though some noted the absence of scriptural anchors. Overall, the infographics were found to be effective in communicating Islamic teachings in educationally accessible formats.

Cultural and Religious Appropriateness

Infographics were widely seen as respectful and culturally appropriate, with the use of language and script receiving the highest subscore (M = 4.62) as shown in Table 3. Indonesian experts highlighted institutional visual norms, while Filipino respondents favored relatable, localized illustrations.

Table 3. *Mean Scores for Cultural and Religious Appropriateness*

Evaluation Item	Mean	SD	Interpretation
Symbolism and imagery are appropriate	4.38	0.58	Agree
Content is culturally sensitive	4.46	0.59	Agree
Language/script are religiously and culturally appropriate	4.62	0.49	Strongly Agree
Overall	4.49	0.56	Agree

Legend: 4.20–5.00 = Strongly Agree; 3.40–4.19 = Agree; 2.60–3.39 = Neutral; 1.80–2.59 = Disagree; 1.00–1.79 = Strongly Disagree.

Qualitative insights suggest Arab-centric symbolism, while doctrinally sound, may not resonate with Southeast Asian Muslim audiences. Respondents stressed that visuals should reflect local norms, foods, and practices. Cultural localization was viewed as an

opportunity to foster relevance, provided theological integrity was preserved.

Educational Usefulness

As shown in Table 4, infographics were rated highly for educational usefulness, with both items scoring M = 4.62. Experts regarded them as effective tools for classroom, digital, and informal learning environments.

Table 4. *Mean Scores for Educational Usefulness*

Evaluation Item	Mean	SD	Interpretation
Effective as educational tools	4.62	0.58	Strongly Agree
Recommendable for inclusion in a halal education module	4.62	0.49	Strongly Agree
Overall	4.63	0.53	Strongly Agree

Legend: 4.20–5.00 = Strongly Agree; 3.40–4.19 = Agree; 2.60–3.39 = Neutral; 1.80–2.59 = Disagree; 1.00–1.79 = Strongly Disagree.

Respondents praised their utility for novice learners and in non-Islamic majority classrooms. Several recommended integrating local product examples, dalil (Qur'anic/hadith citations), and modular elements for interactivity.

Instrument Reliability

To assess instrument validity, internal consistency was evaluated using Cronbach's alpha. As shown in Table 5, all four subscales exceeded α = 0.70, with the full instrument achieving α = 0.923, indicating excellent reliability.

Table 5. *Cronbach's Alpha for Each Instrument Cluster*

Cluster	Items	α
Visual Clarity and Design	5	0.736
Islamic Concept Representation	6	0.836
Cultural and Religious Appropriateness	3	0.776
Educational Usefulness	2	0.822
Full Instrument	16	0.923

Quantitative Summary

The results confirm that digital halal infographics were rated highly across all domains. The strongest performance was in educational usefulness, while visual and cultural clarity also scored consistently well. These findings suggest broad expert approval and cross-cultural resonance.

Table 6. *Summary of Domain Scores*

Cluster	Mean	SD	Interpretation
Visual Clarity and Design	4.45	0.61	Agree
Islamic Concept Representation	4.47	0.57	Agree
Cultural and Religious Appropriateness	4.49	0.56	Agree
Educational Usefulness	4.63	0.53	Strongly Agree
Overall Mean	4.84	0.57	Strongly Agree

Qualitative Summary

Table 7. *Thematic Summary of Expert Insights with Cross-National Comparison*

Theme	Key Insight	Cross-National Comparison (PH vs. ID)	Representative Quote	Implication
Visual Clarity and Design	Clean layouts and icons enhance clarity	ID infographics were more standardized and formal; PH infographics showed greater visual variety.	"Simpler layouts with spacing made it easier to digest."	Emphasize structured minimalism
Islamic Concept Representation	Oversimplification risks doctrinal vagueness	ID focused on accuracy with textual detail; PH emphasized simplification and accessibility.	"PH10 looks like it's made for kids—too simple."	Add scriptural references
Cultural Appropriateness	Arab-centric symbols may not resonate regionally	ID used traditional Islamic symbolism; PH adopted localized cultural references.	"Cultural imagery must reflect local Muslim identity."	Use local food, dress, or brands
Educational Usefulness	Infographics support novice learners effectively	ID experts valued doctrinal structure; PH respondents appreciated relatable, flexible formats.	"Strongly supportive."	Expand use in curriculum

This table synthesizes expert perceptions across the four key dimensions, highlighting both strengths and opportunities for culturally grounded improvement. Themes aligned closely with the quantitative results and affirm the study's framework.

Design Guidelines Based on the Findings

To improve digital halal infographic development, the following design guidelines are proposed:

Enhance Visual Clarity

Prioritize clean, modular layouts with clear headings.

Use culturally appropriate, high-contrast color schemes.

Choose large, legible, and consistent typography.

Improve Concept Representation

Simplify doctrinal concepts without losing theological meaning.

Collaborate with Islamic scholars for accuracy.

Include brief scriptural references (dalil) when relevant.

Ensure Cultural Relevance

Avoid generic Arab-centric visuals in Southeast Asian contexts.

Integrate local food, settings, and language respectfully.

Reflect Muslim diversity in symbols and tone.

Maximize Educational Usefulness

Include concise definitions, labels, and learning prompts.

Design for mobile-friendliness and platform adaptability.

Align visual content with curricular goals and learner levels.

By applying these guidelines, designers and educators can ensure that digital halal infographics are visually clear, doctrinally sound, and culturally appropriate— enhancing their value across both formal and informal educational settings in Muslim and non-Muslim majority contexts

Conclusion

This section presents the conclusions and recommendations based on the integrated quantitative and qualitative findings of the study. The aim is to provide a concise summary of key insights and offer clear, actionable proposals to enhance the effectiveness of digital halal infographics. The study concludes that digital halal infographics from Indonesia and the Philippines exhibit distinct visual strategies, conceptual emphases, and cultural orientations, which are shaped by each country's unique religious and institutional contexts.

Expert evaluations revealed strong approval across four primary domains: visual clarity and design, representation of Islamic concepts, cultural and religious appropriateness, and educational usefulness. Infographics were particularly appreciated for their clean layout, clarity of doctrinal content, and relevance to local audiences. Among these domains, educational usefulness received the highest ratings, indicating that experts view infographics as highly effective tools for both formal and informal instruction on halal concepts. Scores for Islamic content accuracy, cultural sensitivity, and visual appeal also ranged from "Agree" to "Strongly Agree," further reinforcing their overall approval.

Qualitative insights complemented these quantitative results, revealing that design elements such as minimalistic structure, clear color schemes, and culturally responsive iconography significantly contributed to learner engagement. Experts from both countries emphasized that effective visuals must achieve a balance between simplicity and theological depth. Cross-national analysis revealed important differences: Indonesian experts generally preferred structured and standardized visuals aligned with institutional norms, while Filipino experts favored more flexible and accessible designs suitable for diverse learning contexts. These contrasts highlight the importance of developing infographics that adhere to universal principles of Islamic representation while also respecting localized cultural values.

These findings directly address the study's research questions by confirming that expert evaluations of digital halal infographics align with the intended domains of design clarity, doctrinal fidelity, cultural relevance, and educational utility. To translate these insights into practice and guide future development, several recommendations are proposed.

First, it is essential to ensure consistency in design across both countries by creating a flexible style guide that outlines layout, typography, iconography, and color usage. This guide should balance visual clarity with respect for cultural diversity. Second, the inclusion of selective Qur'anic or ḥadīth references—particularly when addressing abstract concepts such as ṭayyib or aḥkām—can deepen doctrinal accuracy without overwhelming viewers. Third, the design process should actively involve local scholars, educators, and community members to ensure alignment with regional practices and community needs.

Fourth, classroom-based pilot testing should be conducted in both Islamic and secular schools to assess student comprehension and engagement, with learner feedback informing further refinements in design and content. Fifth, ongoing review of new infographic formats and visual symbols is recommended to monitor their impact on educational clarity and theological precision, with feedback loops maintained between scholars, educators, and learners.

Furthermore, a cross-country collaboration network between Filipino and Indonesian infographic developers is encouraged. Such a partnership could blend Indonesia's emphasis on doctrinal rigor with the Philippines' strength in contextual creativity. To support regional adaptation, visuals should be tailored to reflect local foods, clothing, and cultural markers while maintaining Islamic accuracy through interregional dialogue. Finally, future research should explore interactive formats—such as clickable halal certification steps or food classification pathways—to further enhance user comprehension and engagement in digital learning environments..

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