THE ROLE OF MULTIMEDIA LEARNING TOOLS IN IMPROVING STUDENT OUTCOMES IN HALAL INDUSTRY EDUCATION

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Article Info	ABSTRACT
  OPEN ACCESS	This article examines how multimedia learning tools, such as interactive case studies, educational games, and animated videos, can improve the education of higher education students specializing in the halal industry. Due to the global expansion of the halal sector, there is a growing demand for new and effective educational methods that can successfully communicate complex concepts related to halal practices, regulations, and market dynamics. Using a narrative literature review, the study assesses these multimedia tools' effectiveness and provides insights into how they can better prepare students for careers in this expanding field.

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INTRODUCTION

The halal industry, encompassing sectors such as food, finance, cosmetics, and pharmaceuticals, has experienced significant growth driven by increasing consumer demand for products and services adhering to Islamic

principles. As this market expands globally, there is a pressing need for a skilled workforce to understand the complexities of halal practices, regulations, and market dynamics. Traditional educational methods, often relying on textbooks and lectures, may need to fully address the practical applications and intricate knowledge required for this sector. Innovative educational approaches are needed to bridge this gap to enhance student learning and prepare them for real-world challenges in the halal industry.

Multimedia learning tools, including interactive simulations and case studies, offer dynamic and engaging ways to present complex information and cater to diverse learning styles. These tools can create immersive learning environments that allow students to explore and apply concepts interactively. This research investigates the impact of multimedia learning tools on students specializing in the halal industry, examining how these tools influence learning outcomes, engagement, and practical skills. By evaluating the effectiveness of these tools, the study aims to provide insights into how higher education institutions can integrate technology to improve educational outcomes and better prepare students for careers in the growing halal industry.

LITERATURE REVIEW

The literature review encompasses the theories of multimedia learning and their influence, as well as the current trends and challenges in halal industry education.

Multimedia Learning Theories and Their Impact

Multimedia learning theories, such as Mayer's Cognitive Theory of Multimedia Learning, highlight how multimedia elements (text, audio, video) can improve cognitive processing and learning outcomes. Multimedia tools help manage the cognitive load by integrating visual and auditory information, thereby enhancing comprehension and retention (Mayer & Johnson, 2009). Studies in other fields, such as medical education and engineering, have demonstrated that multimedia tools can significantly enhance student engagement and learning outcomes by providing interactive and immersive experiences (Mayer & Moreno, 2003). Applying these principles to the halal industry could offer similar benefits, enabling students to better grasp complex halal practices and regulations through interactive simulations and virtual scenarios.

Current Trends and Challenges in Halal Industry Education

Education in the halal industry traditionally relies on theoretical lectures and textbook-based learning (Nasution & Walad, 2022). However, research indicates that this approach may fall short in addressing the practical and regulatory complexities of the sector, often leaving students struggling to apply theoretical knowledge to real-world scenarios (Hannay & Newvine, 2006; Stanton & Stanton, 2017). To address this gap, integrating multimedia learning tools offers a promising solution by providing interactive and practical experiences that enhance understanding (Abdulrahaman et al., 2020).

One significant approach to enhancing halal industry education is through the use of interactive case studies (Lundeberg et al., 2011). By engaging students in case studies that simulate market trends, regulatory challenges, and ethical decision-making, they can apply theoretical knowledge in a practical context (Steiner & Posch, 2006). This approach aligns with the findings of Fitri et al. (2024), who demonstrated the effectiveness of Android-based educational games in enhancing student skills and engagement in Islamic Religious Education. Such interactive tools can similarly be adapted to focus on halal industry topics, offering students a more hands-on learning experience. The integration of animated videos is another effective multimedia tool in halal education. Saffinee and Ramlan (2023) highlight the potential of animated videos to promote a deeper understanding of complex concepts within the halal industry. By visually illustrating processes and regulations, these videos can make challenging content more accessible and engaging for students (Guo et al., 2014; Stone & Aravopoulou, 2017). Moreover, the acceptance of digital tools among students supports the feasibility of incorporating such technologies into educational frameworks (Falloon, 2020; Hew & Brush, 2007). Fatimah Ibrahim and Muhammad Asyraf Hasim (2023) found a positive intention among students to use halal scanning applications, reflecting a readiness to engage with digital tools in their learning processes. This readiness suggests that similar multimedia approaches could be well-received in halal education.

In sum, it can be concluded that integrating multimedia learning tools such as interactive case studies, educational games, and animated videos can effectively address the practical and theoretical gaps in halal industry education. These tools provide students with interactive and contextual learning experiences, enhancing their understanding and application of halal industry concepts. By aligning with the broader trends of educational technology integration, this approach not only modernizes teaching methodologies but also caters to diverse learning styles. Embracing these multimedia tools not only bridges the gap between theory and practice in the halal industry but also empowers students to gain a deeper understanding and effectively apply their knowledge in real-world settings.

METHODOLOGY

This study primarily employs a narrative literature review to investigate the influence of multimedia learning tools on higher education students specializing in the halal industry. The review involves thoroughly analyzing previous research relevant to multimedia learning tools and their application in specialized educational contexts. To gather pertinent literature, a systematic search was carried out using academic databases such as Science Direct, ResearchGate, and Google Scholar. Keywords like 'multimedia learning tools,' 'halal industry education,' 'technology in education,' and 'interactive learning' were used to identify relevant articles. The search process resulted in the identification of numerous studies. After collecting the literature, an initial screening of abstracts and titles was performed to filter out irrelevant articles. A detailed review was then conducted to select studies specifically addressing the use of multimedia tools in enhancing educational outcomes, especially within the context of specialized industries like the halal sector. This screening process led to the final selection of articles providing insights into general multimedia learning and its specific application in industry-focused education. The selected articles were categorized into two main groups: those focusing on multimedia learning tools and their impact on student engagement and outcomes and those discussing the application of these tools in industry-specific educational contexts, including the halal industry. This approach allowed for a comprehensive understanding of how multimedia tools can enhance learning experiences related to the halal sector in higher education programs. By analyzing and synthesizing the findings from these studies, this research aims to draw conclusions on the effectiveness of multimedia learning tools in improving educational outcomes for students in the halal industry and to provide recommendations for integrating these tools into higher education curricula.

RESEARCH FINDINGS AND DISCUSSIONS

Impact of Interactive Simulations and Educational Games

The review finds that interactive simulations and educational games significantly enhance the halal industry's student engagement and learning outcomes. Studies have shown that these multimedia tools, by providing immersive and interactive experiences, help students better understand and apply complex halal practices and regulations. For example, Fitri et al. (2024) demonstrated that Android-based educational games improved student skills and engagement in Islamic Religious Education. This finding aligns with Mayer's Cognitive Theory of Multimedia Learning, emphasizing that interactive elements can manage cognitive load and enhance comprehension. The discussion highlights that these tools offer a practical and dynamic learning environment, which traditional lecture-based methods often lack. By simulating real-world scenarios, interactive simulations and games enable students to bridge the gap between theoretical knowledge and practical application, thus better preparing them for real-world challenges in the halal industry.

Effectiveness of Animated Videos in Conceptual Understanding

The literature review also reveals that animated videos play a crucial role in making complex halal industry concepts more accessible and engaging. Animated videos effectively convey intricate halal processes and regulations, which can be challenging to understand through text alone (Saffinee & Ramlan, 2023). This multimedia approach enhances conceptual understanding by providing visual and auditory representations of abstract ideas, thereby improving cognitive processing and retention. The discussion emphasizes that animated videos can simplify complex information and cater to diverse learning styles, making them a valuable educational tool. The positive reception of digital tools among students, as noted by Fatimah Ibrahim and

Muhammad Asyraf Hasim (2023), further supports the integration of such multimedia approaches in halal education. Animated videos offer a practical solution to address the theoretical and practical gaps in traditional halal industry education, fostering a more engaging and comprehensive learning experience.

CONCLUSION AND RECOMMENDATION

The integration of multimedia learning tools in halal industry education has been an exciting area of development, showing promise in enhancing student engagement and learning outcomes. As we look to the future, it is important to explore the specific ways in which these tools can be optimized for different learning styles and cultural contexts within the global halal industry. Future research could delve into the design and implementation of customized multimedia learning tools tailored to the specific educational needs of students pursuing careers in the halal industry. Additionally, investigating the long-term impact of these tools on students' retention of knowledge and their application in real-world scenarios would provide valuable insights for educators and curriculum developers.

Furthermore, there is a need to explore the potential of emerging technologies such as virtual reality and augmented reality to enrich the educational experience for halal industry students. Understanding how these innovative tools can be integrated into existing curricula and their impact on practical skill development would be instrumental in shaping the future of halal industry education. By addressing these areas of research, we can further enhance the efficacy of multimedia learning tools in preparing students for successful careers in the dynamic and evolving field of halal industry.

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