RESEARCH ARTICLE

HALLEMA: A GOOGLE SITES INTEGRATED ADDIE INSTRUCTIONAL MODEL IN FACILITATING MALAYSIA HALAL CERTIFICATION APPLICATION

Farrah Payyadhah Borhan[1], Muhammad Syukri Mohd Ashmir Wong[1], Nur Hafizah Harun[1], Nurzahidah Jaapar[1] and Danial Fitri Mustapa[2]

1. Academy Contemporary Islamic Studies (ACIS), UniversitiTeknologi MARA (UiTM), Shah Alam, 40450, Malaysia.
2. Kolej Profesional MARA Bandar Melaka, Jalan Hang Tuah 75300 Bandaraya Melaka Malacca, Malaysia.

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Abstract

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The expansion of the halal industry in Malaysia generates a demand for halal-related positions, including halal executive and halal auditor. Higher education institutions in Malaysia that offer halal-related programs are tasked with delivering a halal career-oriented education to cultivate professional graduates prepared for industry employment. Halal graduates should already be familiar with their job scopes, such as applying for the Malaysia Halal certification and developing a Halal Assurance Management System (MHMS) in their workplace. The present studies aim to investigate the integration of the ADDIE model in the development of the Halal Learning Mate (Hallema) using Google Sites and to evaluate the effectiveness of Hallema on the Google Sites platform in addressing project-based learning challenges related to the application of the Malaysia Halal certification.This research was carried out among a class of 23 students from the Bachelor of Halal Industry Management program at UiTM. The data collection instrument consisted of two sets of achievement tests a pre-test set (from the analysis stage) and a post-test set- which were utilized to determine the need analysis for teaching aids based on the student's prior knowledge. Next, the evaluation of the effectiveness of Hallema was conducted through descriptive analysis using four variables: information (KN=4.49), accessibility (KA=4.53), information (IN=4.50), and document management (PD=4.60), which were evaluated using a 5-point Likert scale.Results revealed that Hallema is effective as a teaching aid in facilitating Malaysia Halal Certification, with a total mean (of 4.50). Students exhibit more engagement when they perceive the relevance of their learning to real-world applications. Any halal educator may repurpose Hallema for their classroom. This educational resource may facilitate the development of proficient halal practitioners who maintain halal integrity in products and services worldwide.

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Corresponding Author:- Farrah Payyadhah Borhan
Address:- Academy of Contemporary Islamic Studies, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia.

Introduction:-

Malaysia is a prominent leader in the global halal business. Nevertheless, several issues deter Malaysia from being a global halal hub (Shafie et al., 2019). The primary challenge confronting the Halal sector is the need for a proficient Halal practitionerwho comprehends Syariah regulations and translates this academic understanding into practical application within the company. Comprehending the concepts and practices of Halalan and Thoyyiban, coupled with practical knowledge that aligns with industrial requirements, is essential to address the swift growth of the Halal industry. A Halal executive is required to uphold the halal integrity of halal-certified services and goods.The role entails developing the Halal Assurance Management System (HAS) and managing the application and renewal processes for Halal Certification. Additionally, the role of the Halal Executive is vital for advancing the Halal business, as it will enhance the Halal-related aspects of a company or commercial entity (Huda et al., 2021). Recognizing the necessity for proficient Halal practitioners, several educational establishments in Malaysia, including UniversitiTeknologi MARA, Universiti Putra Malaysia (UPM), UniversitiTeknologi Malaysia (UTM), and other higher education institutions, offer Halal Studies programs ranging from Diploma to PhD levels.

To produce effective Halal practitioners, Halal Management program graduates must possess the key competencies of Halal Executives. These competencies include the knowledge, abilities, and attitudes commonly associated with Halal Executives(Huda et al., 2021). The establishment of Malaysian Standard 2691:2021 Halal Profession further reinforced the structured requirements for halal profession within the industry, while the Programme Standards: Halal Studies 2020 equipped students with essential knowledge, skills, and competencies as delineated in the Malaysian Qualifications Framework (MQF), enabling them to explore career opportunities across various roles in the Halal sector(Mohd Nor et al., 2024). As a result, it is critical to prepare future halal practitioner, analyze their workplace practices, and provide them with ongoing professional development. Halal-related program studies in Malaysia must integrate work-based learning approaches into the curriculum to ensure Halal graduates' readiness. İn other words, the Program Educational Objective (PEO) in the Halal Studies Program must correctly correspond to industry needs to ensure that Halal graduates have been trained for their specific Halal core competencies (Borhan et al., 2023).

E-Learning is the umbrella word for online learning, web-based instruction (WBI), and technology-delivered education, which use technology to enable individuals to learn anytime and from any location (Turnbull et al., 2021). Web-based learning media refers to media that employs advanced technology over the Internet. The web can be transformed into interactive media if the media presentation includes various multimedia activities. In the learning process, Google Sites can generate interactive learning media that includes one component of collaborative learning: voice, video, and images (Culajara, 2022). In the present studies, Hallema, known as Halal Learning Mate, has been developed using Google sites to assist halal undergraduates in learning and applying for Malaysia halal certification. The research problem addressed in this study is to develop the on-student learning outcomes and interest in the context of project-based learning that needs the students to perform the Malaysia Halal Certification application. The study aims to address the subsequent research questions:
1. How was the ADDIE model integrated into the development of Halal Learning Mate (HALLEMA) through Google Sites?
2. Is using Hallema on the Google Sites platform useful and effective in solving project-based learning related to applyingforthe Malaysia Halal certificate?

ADDIE instructional model was adopted in the development process. Hallema is a mobile learning (M-learning) tool where students can learn anytime and anywhere, supporting 21st-century learning (Samsudin et al., 2021). Students are more engaged if they see how their learning applies to the real world(Spatioti et al., (2022). Hallema "Halal Learning Mate" is one of the teaching aids in Halal classrooms; it exists in the form of an online learning platform which provides comprehensive hands-on application of Malaysia Halal Certification, including the preparation of documentation needed, mock submission using the MyEHalal application system. Hallema aims to bring Halal Education to the next level by producing ready-to-work Halal undergraduates.

Literature Review:-

The efficacy of classroom instruction is contingent upon selecting suitable teaching and learning methodologies. Nicholls and Nicholls (1978) assert that the curriculum serves as the instructional framework devised by educators for their students. To achieve teaching objectives, the educator must meticulously structure lesson plans, instructional content, and hands-on tasks. Many teaching and learning theories, including behaviourism,

cognitivism, constructivism, socio-constructivism, social, and humanist approaches, have influenced the development of diverse teaching and learning models tailored to address specific subject requirements and contexts. These models have been designed to address specific subject requirements and appropriateness.

Malaysian Qualification Accreditation (MQA) introduced Halal Studies programme standards in January 2021, replacing the previous Muamalatprogramme. This program was used as a guideline for establishing an essential book of knowledge for producing Halal practitioners who have comprehensive knowledge (theoretically and practically) and can analyze relevant or emerging Islamic issues across different halal areas with technical competency, including the use of numeracy and digital skills to solve problems that meet Halal industry requirements and standards. Halal graduates are expected to be conversant with their job scope, such as applying for the Malaysia Halal certification and establishing a Halal Assurance Management System (MHMS) at their workplace.

The demand for accelerated and more extensive learning processes has driven the growth of e-learning. It additionally includes an interface, the transfer of real-time information, and expert guidance. Consequently, e-learning serves as a viable method for redefining conventional educational roles, facilitating students in optimizing their learning preferences, enhancing their confidence in their abilities and knowledge at their own pace, and enabling them to make more autonomous and informed judgments (Khaldi et al., 2023). As a result, students' modes of learning are transitioning from "inactive learning" to "active learning (Shahzad et al., 2021). Utilizing the ADDIE paradigm in teaching aids through Google Sites entails a systematic approach to instructional design that improves the efficiency of educational resources (Lu'luil et al., 2024). The ADDIE approach comprises five phases: analysis, design, development, implementation, and evaluation. Every phase is essential in the formation of well-organized and influential learning experiences.

The effectiveness of web-based learning in Google Sites is an example of an interactive learning media tool for learning (Soleimani et al., 2024). Google Sites is a web programming tool that allows users to generate material that is readily accessible and effortless (Jusriati et al., 2021; Johdi et al., 2024). Google Sites can create personalized websites based on the user's demands (Masruhim et al., 2024). Google Sites includes various concepts and features readily available to internet users, making it suitable for teachers, lecturers, students, and teaching staff to develop web-based learning media or e-learning media (Wardana & Ariffin, 2024).

Methodology:-
Technology in education is a tool that supports learning. This tool is varied and generally adapted to the needs of the learning medium. Google Sites was found to be an effective learning tool for teaching and learning(Husniyah et al., 2022; Kaban et al., 2021; Kadafi, 2021). The research method used for Hallema is research and development (R&D). Hallema was developed using Google Sites and integrated with the ADDIE model (Analysis, Design, Development, Implementation and Evaluation). Elements in ADDIE model.

The first stage of development analysis is to conduct a needs analysis. The analysis was conducted by conducting pre-test questions on prior knowledge of the Malaysia Halal application. A pre-test question on Malaysia Halal certification was tabulated in Table 1. Hallema was tested on a total of 23 Bachelor of Halal Management students.

Table 1: A set of achievement tests (Pre and Post-test)

No	Question
1.	What is the main reference to refer to if you want to apply for Malaysia Halal Certification for your company?
2.	How to get a Halal certificate for your raw material (Certified Halal by JAKIM & Recognized certification Bodies)?
3.	Give 1 example of a Halal Critical ingredient in which the result of DNA analysis must be provided during Halal Certification's application.
4.	If you have doubts about a product's halal status, which website should you refer to verify?
5.	What is the name of the file where you store halal supporting documents?
6.	List three supporting documents required for the Halal Application.
7.	On which website do you perform for the Malaysia Halal Application?
8.	After submitting the Halal Certification online, all the required supporting documents must be sent to

	JAKIM/JAIN in how many days?
9.	What is the following process after completing online and document submission (with fees)?

Following the design step, Hallema were constructed using four elements: a structured module for the application of Halal certification, documentation, virtual coaching and consultation with the lecturers, and an informative component. The extracted information was arranged as a storyboard for this website. Next is the development of Hallema. Google Sites were used as a tool to embed all the extracted information. For the implementation using Hallema, the students were exposed to the use of this platform for 14 weeks, starting from the first week until the last week of their academic session, to complete project-based learning on the application of Malaysia Halal certification included with documentation and submission through MyEhalal platform to achieve the course learning outcome of to perform the application of Malaysia Halal certificate (A3, PLO8) according to MQF 2.0.

Two sets of achievement tests - a pre-test set (from the analysis stage) and a post-test set were utilized to determine the need for analysis beforethe student's knowledge. Next, the evaluation of the effectiveness of Hallema was conducted through descriptive analysis using four variables, information (KN), accessibility (KA), information (IN), and document management (PD), which were evaluated using a 5-point Likert scale to illustrate their degree of agreement. Scale point "5" indicated Strongly Agree", point "4" indicated Disagree, point "3" indicated "Neutral/Medium, point "2" indicated "Disagree" and point "1" for "Strongly Disagree". As for the interpretation of means, the values of 1.01 - 2.00 "Low", 2.01 - 3.00 (Moderately low), 3.01 - 4.00 (Moderately high), and 4.01 - 5.00 (High).

Results and Discussions:-
Need Analysis
In the analysis of content for Hallema, the Malaysian Halal Certification Procedure Manual and Malaysian Halal Management System (MHMS) 2020 were used as the primary reference since all Malaysian Halal certification applicants need to refer to these guidelines. This stage is needed to evaluate students' prior knowledge on the Malaysia Halal certification application. Studies by Hidayat et al. (2023) use the same method to identify the need. The initial survey through the pre-test found that students were experiencing difficulties in understanding the processes involved in applying for halal certification. Figure 1 reveals that the initial survey through the pre-test found that students were experiencing difficulties in understanding the processes involved in applying for halal certification. So, there is a need to develop a web-based kit to equip participants with full knowledge of the Malaysia Halal certification process, starting from document preparation to application on the MyE-Halal App.
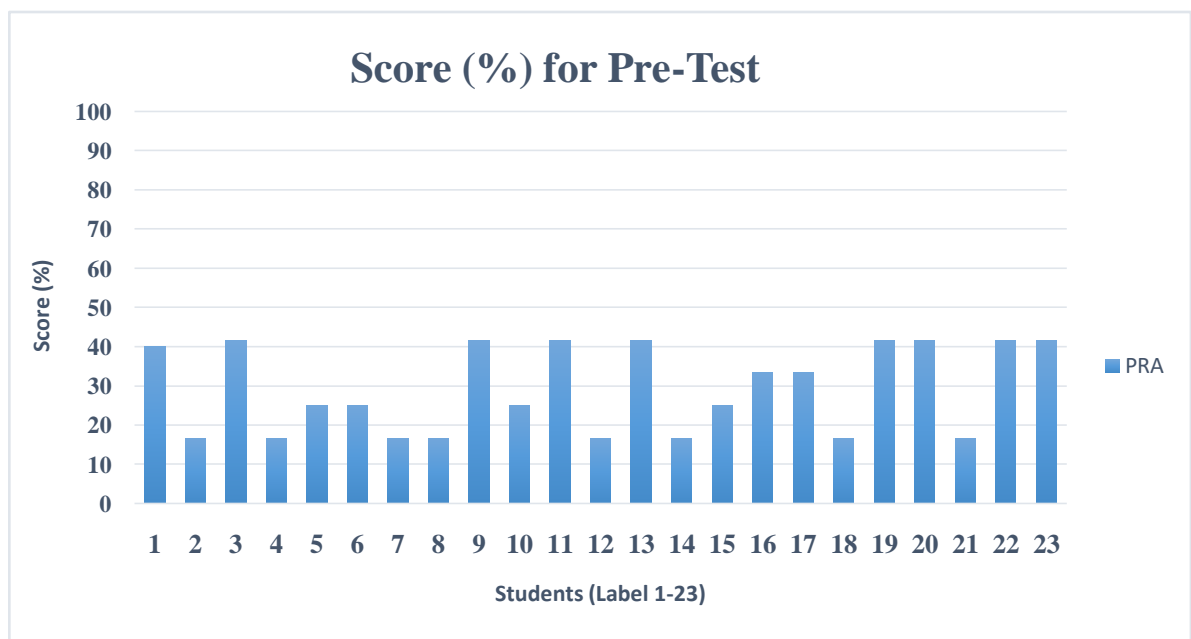

Figure 1:- Score for pre-test.

Design and Development

During the design phase, educators delineate the learning objectives and establish a comprehensive plan for the instructional materials. This encompasses making decisions regarding the organization of content, instructional approaches, and ways for evaluating learning. For Google Sites, this includes creating the site's structure, incorporating multimedia components, and deciding on the most effective way to deliver information. The extracted information was arranged as a storyboard for this website. Next is the development of Hallema. Google sites were used as a tool to embed all the extracted information. The main objective of this web-based kit is to equip participants with full knowledge of the Malaysia Halal certification process, starting from document preparation to application on the MyE-Halal App. Hallema's website can be logged on using mobile phones, laptops, desktops, and tablets. Hallema's component is well-designed, harnessing emerging digital technology to provide a more efficient and effective online teaching and learning environment. Figure 2 shows the summarised flow process of the development of Hallema.
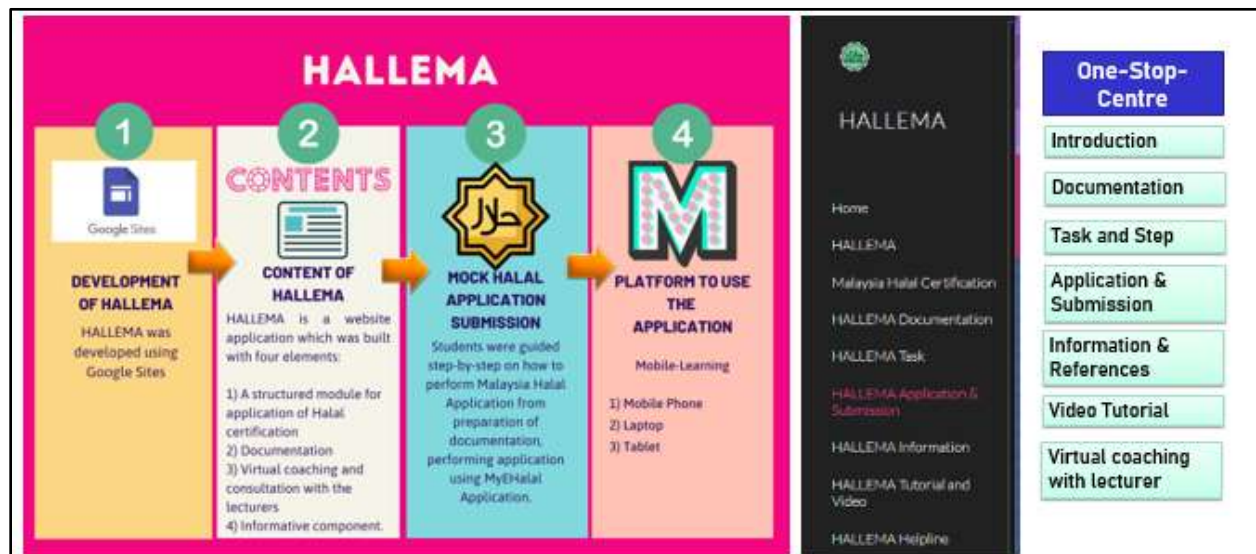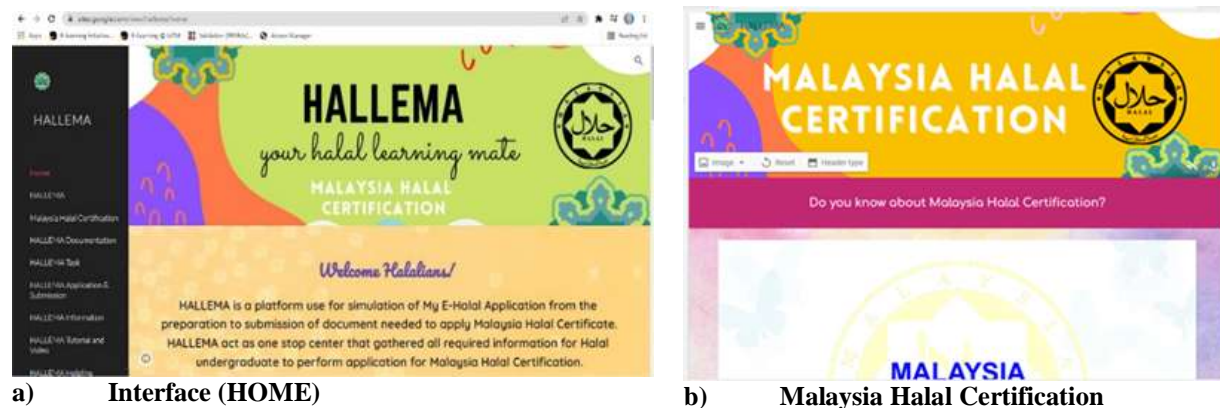

Figure 2:- Flow process on the development of HALLEMA.

Table 2:-Summary of features and function of each section on Hallema.

a)   **Interface (HOME)**

b)   **Malaysia Halal Certification**

c) Documentation

d) Task

e) Application and Submission

f) Additional Information

g) Video tutorial

h) Helpline (FAQ and Comment)

At the design stage, making a product design concept usingGoogle sites-based learning resources begins with compiling a storyboard of learning resources using the website, then compiling components, materials, tutorial videos, and assessments (problem-based learning). Development and model of learning resources with Google Sites using SistemPensijilan Halal Malaysia (MYeHALAL) as the platform for mock Halal certification applications. The main features of Hallema are summarized in Table 2. Hallema consists of 8 main sections, which consist of a) Home, b) Malaysia Halal Certification, c) Task, d) Documentation, e) Application and Submission, f) Information, g) Tutorial (Video), and h) Helpline.

Under the Home and Hallema (a) section, students were introduced to Hallema as a learning platform to learn about the application process for Malaysia Halal certification. For Home, students were briefed on the guidelines for using Hallema. Manual Procedure For Malaysia Halal Certification (Domestik) (2020) was used as the primary reference in developing the module for this website. İn which in Malaysia Halal Certification (b) interface, the general and specific requirements of Halal certification were explained to students to familiarize them with the Halal ecosystem. This is important, especially for Halal Management students, who will later be halal executives in the company. For the next menu section, on documentation (c), the Halal File application documentation was listed,including business registration (SSM), annual income, and license. The next part, task (d), is problem-based learning, where students

are required to create an imaginary company and apply for halal certification through the MyeHalal website for their company (Rana et al., 2016).

Besides, students are also required to prepare a Halal file, which consists of the documents required by JAKIM to apply for Halal certification. Students must create at least three (3) menus/products from their imaginary company for halal certification. Each menu/product must register for at least twenty (20) raw materials with a valid halal certificate in the MyeHalal system. Marks for invalid or no Halal certificates will be deducted for raw materials. The Halal file must be submitted through the application and submission (e) menu. The Hallema application is also included with an external website that provides additional information (f) on halal ingredients in the Halal directory, foreign halal certificates in Verify Halal, and halal issues in Smart Halal. Other than that, a video tutorial (g) on how to fill in the MyeHalal system was provided. The lecturer can be contacted virtually using this menu for inquiries or frequently asked questions (FAQ) (h).

Implementation
Implementation involves delivering the instructional materials to the learners. This can be done by publicly publishing the Hallema and providing students access. Students were provided with a tutorial video as virtual coaching to familiarize them with navigating the site and utilizing the resources effectively. This can minimize face-to-face guidance and promote self-learning (Maharani, 2023). For the implementation using Hallema, the students were exposed to the use of this platform for 14 weeks, starting from the first week until the last week of their academic session, to complete project-based learning on the application of Malaysia Halal certification included with documentation and submission through MyEhalal platform to achieve the course learning outcome of to perform the application of Malaysia Halal certificate. All information needed to perform the task was provided in Hallema.

Evaluate
The final stage focuses on evaluating the effectiveness of the instructional materials and the achieved learning outcomes (Kirkpatrick & DeWitt., 2015). This can be achieved by gathering feedback from students and performing performance assessments. Using this assessment, instructors can make essential modifications to enhance the learning experience continuously. Figure 3 shows a comparison of raw score marks for the pre-post-test. Results show that the post-test mark was higher than the pre-post mark, which suggested Hallema was effective in sufficient knowledge.
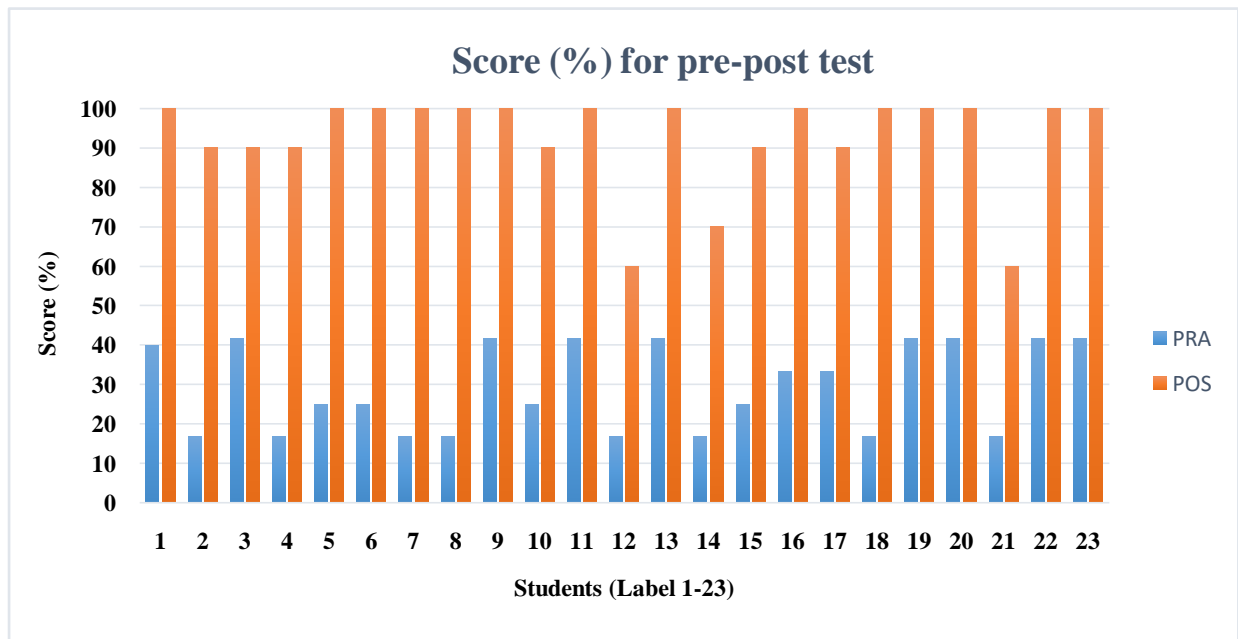

Figure 3:- Score for pre-post test.

The effectiveness of Hallema was evaluated based on four different constructs consisting of information (KN), accessibility (KA), information (IN), and document management (PD), as tabulated in Table 3. The overall mean shows an average of 4.50, which shows high effectiveness as a teaching aid. The first construct (KN, mean=4.49) proved that Hallema is an effective educational tool for students learning about the Halal certification application process. Its content is well-organized, providing comprehensive guidelines that facilitate understanding. The module features clear and easy-to-follow assignment instructions, making it accessible for self-study. Students can apply the information from Hallema to enhance their grasp of the certification process. Overall, the Hallema accelerates comprehension of Halal certification, making the learning experience more streamlined and effective.

Table 3:-Effectiveness of Hallema in different constructs.

Construct		Items	Mean	Standard Deviation (SD)
INFORMATION (KN)	1	The Hallema can be a helpful tool for students to learn the Halal certification application process.	4.61	0.15
	2	Learning is easier to understand using a single learning medium.	4.48	0.15
	3	The content of the Hallema module is well-organized and provides complete guidelines.	4.52	0.14
	4	Clear and easy-to-understand assignment instructions.	4.70	0.12
	5	The explanation of the Halal certification application process is easy to understand.	4.52	0.14
	6	Information in the Hallema can be applied for self-study.	4.13	0.16
	7	Hallema can accelerate the understanding of the process for Halal certification application.	4.48	0.12
			4.49	
ACCESSIBILITY (KA)	1	Hallema can be accessed using devices such as smartphones, tablets, and computers with internet access.	4.52	0.12
	2	Hallema can be accessed anytime and anywhere.	4.65	0.12
	3	Hallema provides a direct feedback medium for questions to the lecturer.	4.48	0.15
	4	Hallema is a one-stop as it includes various links like the Halal Directory MyEHalal for the Halal application process and is easily accessible.	4.48	0.15
			4.53	
INFORMATIVE (IN)	1	Hallema displays the latest information related to the Halal certification application and other relevant information.	4.48	0.14
	2	Video tutorials in Hallema can enhance the understanding of the Halal certification application procedure.	4.61	0.12
	3	Hallema displays Frequently Asked Questions (FAQ) to provide additional information about the Halal certification application.	4.43	0.15
			4.50	
DOCUMENT MANAGEMENT (PD)	1	Hallema provides complete document templates for Halal certification applications (SSM, PBT license, etc.).	4.43	0.15
	2	Hallema facilitates the submission of final project assignments.	4.43	0.15

	3	Web applications like Halal Certification Kit should be introduced in other Halal courses such as Food Industry (MeSTi application), Halal Assurance System Management, and Halal Auditing.	4.52	0.15
			4.60	
		Total Average:	4.50	0.14

For accessibility(KA, mean=4.53),Hallema has excellent accessibility as an instructional tool, enabling students to access it through various internet-enabled devices, including smartphones, tablets, and laptops. The versatility of this learning platform allows users to access the content at any time and from any location, giving them the convenience to study at their preferred speed. In addition, it allows students to ask their lecturer questions immediately, assuring prompt clarification and support. Hallema is a comprehensive website that provides important links, such as the Halal Directory MyEHalal, which simplifies the application process for Halal certification. In summary, the accessibility aspects of Hallema make it an essential tool for students aiming to understand the Halal certification application's flow process fully. Next, informative features (IN, mean=4.50), Hallema offers a variety of instructional features that improve the learning experience regarding the Halal certification application procedure. It presents the most recent information and updates, guaranteeing that consumers are thoroughly informed about pertinent advancements. Video tutorials enhance comprehension of the certification process, rendering intricate subjects more readily comprehensible. These resources collectively make Hallema a comprehensive teaching aid, facilitating a deeper understanding of Halal certification for students and practitioners alike.

Hallema provides essential document management functionalities with mean=4.60, which significantly assists students in applying for Halal certification. The platform offers comprehensive document templates for several purposes, including SSM and PBT licenses, simplifying the process of preparing required files. In addition, Hallema improves the process of submitting final project assignments, creating a seamless workflow for students. The module also proposes using web applications, such as the Halal Certification Kit, in other Halal courses, including Food Industry (MeSTi application), Halal Assurance System Management, and Halal Auditing. Integrating this system would improve the learning experience since it would offer practical tools for effectively managing Halal certification documentation.

Conclusion:-
Hallema is a vital teaching aid in Halal education, providing an online learning platform that encompasses practical applications related to the Malaysia Halal Certification. This innovative teaching aid facilitates comprehensive training, including preparing documentation and mock submissions through the MyEHalal application system. By integrating hands-on experiences with theoretical knowledge, Hallema aims to elevate Halal education and produce well-prepared graduates for the workforce. This initiative enhances students' understanding of Halal practices and contributes to the overall development of skilled professionals in the Halal industry.The rapid growth of the halal industry in Malaysia has created a significant demand for specialized roles, such as halal executives and auditors. This burgeoning sector necessitates a well-prepared workforce, prompting higher education providers (HEPs) to integrate halal-related courses into their curricula. This article suggested that Halal Learning Mate (Hallema) is an effective project-based learning tool designed to enhance the educational experience for students pursuing careers in the halal industry.

Acknowledgements:-

Recommendation For the Future Research:-
This study employed a non-probability sampling method; hence, its findings are constrained and cannot be extrapolated to a broader population on statistical grounds. Therefore, this study suggests that future research should use a larger sample size with more information about the effectiveness of Hallema as a teaching aid. Integrating innovative educational tools like Hallema is essential in preparing graduates for successful careers in the halal industry. As Malaysia continues strengthening its position as a global halal hub, HEPS must adapt its curricula to meet industry demands effectively. By fostering an environment where students can engage with practical

applications of their studies, we can ensure that they are job-ready and capable of contributing meaningfully to the integrity and growth of the halal sector worldwide.

Article Contribution to Related Field of Study:-
This study presents practical implications. Hallema is expected to function as a sustainable resource for halal educators, aiding in the cultivation of proficient halal practitioners who maintain halal integrity in products and services worldwide. This corresponds with Malaysia's strategic objectives to enhance its halal environment and facilitate economic growth, which is anticipated to attain RM113.2 billion by 2030.

References:-

1. Culajara, C. J. (2022). Maximizing the Use of Google Sites in Delivering Instruction in Physical Education Classes. Physical Education and Sports: Studies and Research, 1(2),79-90.
2. Hidayat, H., Hidayat, O.S., &Widiasih, W. (2023). Development of Google Sites-Based Learning Resources to Improve Mastery of Concepts and Process Skills in Electrical Circuit Materials. JurnalPenelitian Pendidikan IPA, 9(6), 4624–463.
3. Huda, F., Rosli, N. M., Jamaludin, M. A., Hashim, Y.-Y., & Ahmad, A. N. (2021). Development of Core Competencies Index for Halal Executive in Food Company. *Virtual International Halal Science Conference-Proceedings (2021)*, *November*, 175–179.
4. Husniyah, R., Widiatsih, A., & Kurniawan, N. (2022). Pengembangan Website Menggunakan Google Sites Materi Produksi Pada Tumbuhan dan Hewan untuk SMP/MTs Pada Masa Pandemi COVID 19. *Education Journal : Journal Education Research and Development*, *6*(1), 47–58.
5. Johdi, H., Gunawan, G., Ayub, S., & Kosim, K. (2024). The Effectiveness of Interactive Google Sites-Based Learning Media on Students' Conceptual Understanding. Indonesian Journal of STEM Education, 6(2), 55-62.
6. Juliani, J., Sitompul, H., & Simbolon, N. (2024). Development Of Interactive Multimedia Based On Google Site For English Class. *Edutec: Journal of Education And Technology*, *7*(4).
7. Jusriati, J., Nasriandi, N., Kurniadi, W., & Ratna, R. (2021). The implementation of Google Sites as an e-learning platform for teaching EFL during the COVID-19 pandemic. English Review: Journal of English Education, 10(1), 129-138.
8. Khaldi, A., Bouzidi, R., & Nader, F. (2023). Gamification of e-learning in higher education: a systematic literature review. Smart Learning Environments, 10(1), 10.
9. Kaban, R., Sari, S. N., & Prasasti, T. I. (2021). Pelatihan Penggunaan dan Pemanfaatan Google Sites dalam Mendukung Proses Pembelajaran di Yayasan Al-Hikmah Tanjung Pura. *Jurnal Publikasi Pengabdian Kepada Masyarakat*, *1*(3), 1–12.
10. Kadafi, T. T. (2021). Integrasi Google Art and Culture dan Google Sites sebagai Media Pembelajaran Widyawisata pada Pembelajaran Penulisan Puisi. *Jurnal Pendidikan*, *30*(1), 23–28.
11. Kirkpatrick, J. M., & DeWitt, D. A. (2015). Strategies for evaluating learning outcomes. *Teaching in Nursing-E-Book: Teaching in Nursing-E-Book*, 398.
12. Khotimah, H., Usman, O., & Faslah, R. (2024). Development Of Interactive Learning Media Based On Google Sites For Personnel Administration Subject. Cendikia: Jurnal Pendidikan dan Pengajaran, 2(7), 346-356.
13. Lu'luil, M., Kristiani, K., & Sulistyaningrum, C. D. (2024). Development of hots-based cognitive assessment instruments: ADDIE model. *Journal of Education and Learning (EduLearn)*, *18*(2), 489-498.
14. Maharani, P. A. (2023). Needs Analysis for the Development of Web-Based Interactive Learning Media Using Google Sites to Improve Learning Outcomes on Regular Straight Motion Material in Class XI in Bengkulu City High School. *Indonesian Journal of Pedagogy and Teacher Education*, *1*(1), 21-26.
15. Masruhim, M. A., Maasawet, E. T., Hakim, A., Candra, K. P., & Subagiyo, L. (2024). Efforts to Improve Students' Communication Skills and Technological Literacy by Developing Google Sites Learning Media on Virus Material at Grade X. *Jurnal Penelitian Pendidikan IPA*, *10*(6), 3105-3112.
16. Mohd Nor, A., Payyadhah Borhan, F., Saidon, R., Sarah Izham, S., Sahri, M., & Adha Ab Hamid, N. (2024). Readiness of Halal Management Students For Employability.Int. J. Adv. Res. 12(04), 805-820.
17. Rana, S., Ardichvili, A., & Polesello, D. (2016). Promoting self-directed learning in a learning organization: tools and practices. *European Journal of Training and Development*, *40*(7), 470-489.
18. Samsudin, M. R., Sulaiman, R., Guan, T. T., Yusof, A. M., & Yaacob, M. F. C. (2021). Mobile Application Development through ADDIE Model. International Journal of Academic Research in Progressive Education and Development, 10(2).
19. Spatioti, A. G., Kazanidis, I., & Pange, J. (2022). A comparative study of the ADDIE instructional design model in distance education. Information, 13(9), 402.

20. Shafie, A., Nazri, M. A., & Haziyah Hussin. (2019). Makanan Halal Menurut Perspektif Islam & Kepentingan Pelabelan. *Jurnal Bitara*, *2*(3), 201–205.

21. Shahzad, A., Hassan, R., Aremu, A.Y. (2021). Effects of COVID-19 in E-learning on higher education institution students: the comparison between males and females. Quality & Quantity, 55, 805–826

22. Soleimani, S. M., Jaeger, M., Faheiman, A., &Alaqqad, A. R. (2024). Success factors of recently implemented eLearning methods at higher education institutions in Kuwait. *Quality in Higher Education*, *30*(1), 130-142.

23. Turnbull, D., Chugh, R. & Luck, J. (2021). Transitioning to E-Learning during the COVID-19 pandemic: How Have Higher Education Institutions Responded to the Challenge?*Education and Information Technologies*, 26, 6401–6419.

24. Wardana, G. K., & Arifin, Z. (2024, July). Development of Google Sites learning media based on problem-based learning. In AIP Conference Proceedings (Vol. 3145, No. 1). AIP Publishing.