Evaluating the Effectiveness of Digital Content Delivery by The Kerala Council for Historical Research (KCHR) Institute

ABSTRACT

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| **Aims:** The primary aim of the study is to evaluate the KCHR website with a content analysis approach and what is the general nature of the evaluation of the website and how effectively it is able to provide information to the public, researchers and academicians.It aims to pinpoint aspects of the system that may require enhancement, such as user interaction, accessibility features, and overall content layout.**Study design:** This study adopts a website content analysis approach using a systematic similarity framework. The methods employed for data collection included webometric analysis although this analysis was not the core of the study. The evaluation was based on specific criteria related to the websites goals and usability rated on a 1-5 point scale.**Place and Duration of Study:** The study was conducted online by analyzing the KCHR website. Data collection occurred on February 15,2025**Methodology:** The SiteAnalyzer SEO Tool v2 v2119 was used to collect the webometric data. To evaluate website analysis multiple features of the site parameters Like: navigation, searchability, user engagement and content accessibility were evaluated on a 1-5 scale, and to shed light on the way the site services various user groups and research efforts.**Results:** The analytical findings offer several strengths and weaknesses of KCHR web portal. The site is very open and well laid out, with a clear sense of place that connects very well to Kerala’s history/cultural experience. It offers insight into research activity, public programs, and cultural initiatives. But, there are things to improve, regarding navigation and searchability particularly. Although simple navigation is easy enough, some researchers and public who might want to get to particular resources may be challenged by poor search functionality and less intuitive pathways to key areas of interest (such as research opportunities). There is also room to improve user engagement features to ensure a better experience overall. Improvements that could really improve the usability and accessibility of the website would be to streamline the navigation system and improve the search functions.**Conclusion:** the study concludes that KCHR website is an effective presentation of the cultural diversity and historical heritage of Kerala as a resource to all public and researchers. But there are improvements in navigation, search functionality, and overall user experience needed to serve its audience better. Improved pathways for discovering research opportunities and enhanced interactivity would strengthen the support-action role of websites in research and public engagement. Although the website is well-built, optimization in these realms will enable it to better serve its diverse users moving forward. |

*Keywords: Content Analysis, Web analysis, Historical Knowledge Dissemination, KCHR, Kerala Council for Heritage and Research*

1. INTRODUCTION

The Kerala Council for Historical Research (KCHR) serves as a leading research institute in the field of Kerala’s cultural heritage, history, archaeology, and social sciences It is a research institute autonomous by virtue of being recognized by the University of Kerala and supported by the Government of Kerala, has been active in promoting historical scholarship. The main activities are interdisciplinary research, publication of research, organization of conferences, grants and scholarships, and fellowship training programs. One widely used outlet for research institutes to publish knowledge efficiently in this digital world. It serves as a vital portal for KCHR to communicate its research projects, publications, events and educational materials. These resources available online, allow both scholars and the general public at large to engage with Kerala’s rich historical and cultural heritage of KCHR. , The present study avails the initiatives of KCHR in digital information and knowledge dissemination through its website. The study employs content analysis to gauge the extent and nature of historical data, current research, published findings, educational resources, collaborative partnerships, financial assistance programs, publications, archives and library information are available online.   The research evaluates website accessibility, usability, and utility for the dissemination of historical knowledge. Through this analysis, the study aims to investigate the role of the website in preservation and dissemination of the history of Kerala in the digital world by checking its correlation with the information seekers such as researcher’s students and the general public.

 The focus of this research is on the degree to which the KCHR website helps to disseminate digital information and knowledge, as well as on the structure and functionality of the website. It examines evaluates if the material is properly organized, easily accessible, and of relevance to both academic researchers and the public at large. This study evaluates the utility of the website as a platform for sharing historical knowledge and facilitating engagement with Kerala’s cultural heritage.

2. REVIEW OF LITERATURE

Panwar et al. (2025) found that Web 2.0 technology was used on a large number of the Indian Agricultural Universities' websites, but the adoption rate ranged from low to high. Higher education institutions with a focus on agriculture were slower to adopt new features, while deemed to be universities led in webmail and Web OPAC. Pradhan (2025) looked at academic library websites in Maharashtra, using content analysis to evaluate their truthfulness and usefulness in providing information to users. Dobriyal and Deepmala (2024) examined the web visibility of NAAC Sanskrit universities in India, claiming that improvement is needed before candully internationalizing one's presence on domestic thermalese platforms in a world where global receive frequencies are no longer the same. Sampath Kumar and Dhanaraj (2024) Used the Wayback Machine to track Southern India universities' web sites and Extension on the traditional Maniyyantharam far-sighted businesses, people must do manual backup of sites., in order for Vapor decay causing data loss happen. Sharib et al. (2024) This is an evaluative study conducted on the University of Luck now library web site. It was found to be effective, but suggested more orderly features are needed along with a significantly different appearance. Sharib et al. (2024) Another study by this group is an analysis of Annamalai University library web site, identifying that there is lack of things such interactive features. (Like news and feedback options for the users) Needed is for better user engagement. Putra (2024) The SITU TAK website at Telkom University was assessed by Miss Lestari, revealing that there is a gap between what users expect and the quality of the website patted them on the back for. There are areas to be improved. Sadaf et al. (2021) globally, a worldwide content analysis of the top 50 medical university websites revealed serious problems such as lacking library services and accessibility to resources. Muniyasamy et al. (2024) The research, which conducted a webometric study of the Web site of 13 Law colleges in Tamil Nadu, reveals that There scenic spots for these institutions to improve their site quality through various measures including services.

3. OBJECTIVES OF THE STUDY

* Assessing Digital Resources, Content Accessibility, and Organization of Research Outputs on the KCHR Website
* Examining the User-Friendliness, Navigation, and Structure of Key Website Sections
* Investigating Multimedia, Interactive Tools, and Research Support Availability and Functionality
* Evaluating the Transparency, Authority, Timeliness, and Relevance of Research Information
* Analyzing the Functionality of Research Support Tools and Their Accessibility

4. methodology

The methodological approach to this study involves a website content analysis approach to the KCHR web-site, the aim of which is to assess the general information publicly available to the public and researchers. Data is current as of 10 October 2023; the site was audited on 15 February 2025 the SiteAnalyzer SEO Tool v2 .2 119 was used to collect the webometric data offering valuable insights in to the website accessibility, structure  and performance, etc. Although webometric analysis was not directly connected this study, data collected through this tool guided the objectives for content analysis. The description of the technical level of the  contributed to the understanding of the content which could thus be applied to the user experience both content and content quality were thoroughly scrutinized in this study. A systematic approach was used to review and score the different sections of the website  with clear criteria. each of these criteria on a scale of 1-5 where 1 represented poor performance, 3 indicated average performance, and 5 denoted excellent performance. The analysis was conducted based on these criteria to assess the overall effectiveness of the website's content

5. ANALYSIS and discussion

**5.1 Website Analysis of KCHR:**

The website’s navigation menu should include key sections like "Home," "About Us," "Research," "Publications," "Events," and "Contact," with logical sub-menus under each category to enhance user experience. For example, "Research" could have sub-menus like "Ongoing Projects" and "Publications," making it easier for users to find detailed information. Technically, the website has 157 internal links and 43 external links, with a page size of 105.5 KB and a fast loading time of 0.6 seconds. It is available for indexing in robots.txt, meta robots, and X-Robots-Tag, ensuring proper crawling by search engines. However, the absence of a robots.txt file, canonical tag, and HTTPS redirection may impact indexing and SEO. The domain is 10 years old, with an expiration date in 2029, and its IP address is in India.

**Suggestion**

• Add missing description and H1 tag for better SEO

• Optimize image ALT texts for accessibility and SEO

• Address missing canonical tags and HTTPS redirection

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 **Fig. 1. Screen short of the Website of KCHR**

**5.2 Categorization of Information:**

 The KCHR website is well-organized, offering clear sections such as General Information, Research Opportunities, Digital Resources & User Engagement, Knowledge Dissemination, Collaborations, Institutional Policies, Engagement & Media, and Recruitment. It provides essential details about the institution, research opportunities, and resources like the Research Library and Publications, supporting both researchers and the public. However, improvements could be made in streamlining navigation and search functionality, making application processes for fellowships more user-friendly, and expanding community engagement through more interactive features. The institutional policies section would benefit from better categorization and downloadable documents. Integrating social media feeds and regular updates to the photo gallery and events section would further enhance user interaction. Overall, while the website is comprehensive, optimizing usability, improving content clarity, and fostering more engagement would make it even more accessible and effective for users.

 The analyzing of the KCHR website focus on evaluating its accessibility, organization, user-friendliness, and content clarity, as well as the effectiveness of research support tools and interactive features. The analysis covers categories such as Research Opportunities, Digital Resources, and Institutional Policies to identify strengths and areas for improvement. Each criterion is rated on a scale of 1 to 5, with 1 indicating poor performance and 5 indicating excellence. The goal is to assess how well the website serves its users and provide recommendations for enhancing its usability and engagement.

 **Summary of Ratings:** 5: Exceptional performance in that area.,4: Good performance with minor room for improvement.,3: Acceptable performance but needs attention in some areas. 2: Below average; significant improvement needed and 1: Very poor performance requires immediate attention.

 Table 1 Categorization of Information Available on the KCHR Website

|  |  |
| --- | --- |
| **Category** | **Available Information** |
| General Information | Home, About KCHR, Contact, Language Section, General Link, Social Link |
| Research Opportunities | Research Projects, Fellowships 2023-24, Internships, Courses, Financial Assistance for Research Fund |
| Digital Resources & User Engagement | Research Library and Resource Centre, KCHR Publications, KCHR Newsletter, Archives, Video Archives, Online Repository on History, Online Engagement via Events, Feedback Systems |
| Knowledge Dissemination | KCHR Newsletter, Events & Programs, Community Participation in Research, |
| Collaborations & Institutional Links | Collaborative Institutions, Institutional Partnerships |
| Institutional Policies | KCHR Rules & Circulars, Poilcy |
| Engagement & Media  | Photo Gallery, Web Archives (KCHR Archives),Twitter and Facebook |
| Recruitment | Job Opportunities, Staff Recruitment, Career Development within KCHR |

**5.3 Accessibility and User-Friendliness of Key Information:**

Accessibility and User-Friendliness of Key Information analysis (table2), the website has a good level of user-friendliness overall, with an impressive Intuitive Call to Action (rated 5), meaning that the primary actions such as fellowship applications and event registrations are clearly visible and easy to access. However, Navigation Ease scored 3, suggesting that while it is somewhat clear, there are areas for improvement, especially in simplifying the menu for easier navigation. The Search Functionality scored 4, indicating that while it works well, there’s room for improvement, particularly in providing more precise search results for niche topics. Mobile Compatibility received a 4, which shows the website performs decently on mobile, but some pages still need optimization for mobile users. Link Accessibility and Download Options both scored 4, highlighting that most links work well, but occasional external links need checking, and download buttons are functional but could benefit from enhanced clarity (such as adding tooltips or labels).

 Table 2: Analyzing Accessibility and User-Friendliness of Key Information

|  |  |  |
| --- | --- | --- |
|  **Criterion** | **Rating (1-5)** |  **Comments/Observations** |
| Navigation Ease | 3 | Navigation is somewhat clear but needs improvement in menu streamlining. |
| Search Functionality | 4 | Works well but could offer more precise results for niche topics. |
| Mobile Compatibility | 4 | Good performance, though some pages need better optimization for mobile. |
| Intuitive Call to Action | 5 | Well-placed, easily identifiable buttons on both desktop and mobile. |
| Link Accessibility | 4 | Most links work, but occasional external link issues require checking. |
| Download Options | 4 | Visible and functional; tooltips or labels could enhance clarity. |

**Suggestions:**

* Streamline the menu structure to improve navigation.
* Refine the search functionality to better target specific research topics.
* Optimize the website further for mobile users, ensuring full responsiveness across devices.
* Improve download clarity by adding helpful labels or tooltips.

**5.4 Organization and Structure of Website Content**

 Table 3: Evaluating the Organization and Structure of Website Content

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Rating (1-5)** | **Comments/Observations** |
| Navigation Ease | 3 | Navigation is somewhat clear but needs improvement in menu streamlining. |
| Search Functionality | 4 | Works well but could offer more precise results for niche topics. |
| Mobile Compatibility | 4 | Good performance, though some pages need better optimization for mobile. |
| Intuitive Call to Action | 5 | Well-placed, easily identifiable buttons on both desktop and mobile. |
| Link Accessibility | 4 | Most links work, but occasional external link issues require checking. |
| Download Options | 4 | Visible and functional; tooltips or labels could enhance clarity. |

The Menu Structure received a rating of 4, indicating that it is logically organized but could benefit from clearer categorizations to avoid user confusion. The Submenu Arrangement scored 3, pointing to the need for better organization and easier navigation between submenus. Grouping of Information scored 4, showing that content is generally grouped well, but some sections require improved categorization for better user experience. Clarity of Layout scored 4, which suggests that while most content is easy to follow, there’s still potential to better organize key information. Information Overlap or Gaps scored 3, indicating some redundancy and missing integration of content, which could lead to a fragmented user experience.

**Suggestions:**

* Streamline the menu structure to improve navigation.
* Refine the search functionality to better target specific research topics.
* Optimize the website further for mobile users, ensuring full responsiveness across devices.
* Improve download clarity by adding helpful labels or tooltips.

**5.5 Content Clarity, Relevance, and Timeliness**

The website performs well in terms of Content Clarity, with a score of 4, though some technical terms could be simplified for a broader audience. The Relevance to Target Audience scored 5, indicating that the content is highly relevant to researchers, students, and other academic users. The Timeliness of Updates scored 4, indicating that while most content is up-to-date, some sections could benefit from more frequent updates, particularly in publications and research-related events. The Appropriateness of Language scored 4, showing that the language used is mostly appropriate, but simplifying some technical jargon could improve accessibility. Coverage of Relevant Topics scored 5, demonstrating that the website covers a broad range of relevant topics of interest to the academic community.

Table 4: Assessing Content Clarity, Relevance, and Timeliness

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Rating (1-5)** | **Comments/Observations** |
| Clarity of Information | 4 | Generally clear, but some terms could be simplified for broader audiences. |
| Relevance to Target Audience | 5 | Highly relevant to researchers and students. |
| Timeliness of Updates | 4 | Generally up-to-date, but some sections need more frequent updates. |
| Appropriateness of Language | 4 | Mostly appropriate; could simplify technical language for general access. |
| Coverage of Relevant Topics | 5 | Comprehensive content for the academic community. |

**Suggestions:**

* Simplify complex terms where possible to enhance accessibility for non-experts.
* Increase the frequency of updates, especially in research sections and event listings.
* Ensure the language used remains appropriate and understandable for a wider audience.

**5.6 Availability and Functionality of Research Support Tools**

The Fellowship Application Tools scored 4, indicating that they are accessible, though there’s room for improvement in making the forms more user-friendly. The Event Registration Tools scored 5, highlighting that these tools provide an excellent user experience, with easy-to-use features. Downloadable Resources scored 4, indicating that the resources are readily available for download, but metadata improvements are needed for better clarity. The Online Help or FAQ section scored 3, pointing to the need for more detailed guidance to assist users. Accessibility of Forms and Tools scored 4, indicating that the forms are mostly easy to fill out, but could benefit from a more intuitive design.

 Table 5: Evaluating the Availability and Functionality of Research Support Tools

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Rating (1-5)** | **Comments/Observations** |
| Fellowship Application Tools | 4 | Accessible, but could be more user-friendly with better forms. |
| Event Registration Tools | 5 | Easy to use with excellent user experience. |
| Downloadable Resources | 4 | Available for download, metadata improvements needed. |
| Online Help or FAQ | 3 | Help section lacks detailed guidance; improvements needed. |
| Accessibility of Forms and Tools | 4 | Mostly easy to fill out; could benefit from more intuitive design. |

**Suggestions:**

* Improve fellowship application forms for better accessibility and usability.
* Expand the Help/FAQ section with more detailed support.
* Organize downloadable resources clearly for easier access.

**5.7 Multimedia and Interactive Features**

 Table 6: Analyzing Multimedia and Interactive Features

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Rating (1-5)** | **Comments/Observations** |
| Use of Images and Graphics | 4 | Well-used but could be better integrated for educational purposes. |
| Interactive Features | 4 | Useful, but more engaging features like quizzes could be added. |
| Video and Audio Content | 4 | Effective, but higher-quality content could enhance engagement. |
| Multimedia Quality | 5 | High-quality elements that enhance user engagement. |
| User Engagement Features | 4 | Comment sections available, but more development would increase participation. |

The Use of Images and Graphics scored 4, suggesting that while images and graphics are used effectively; they could be better integrated to serve educational purposes. The Interactive Features scored 4, meaning they are useful, but the website could engage users more effectively by adding features such as quizzes or interactive surveys. Video and Audio Content scored 4, indicating that video and audio content is used effectively but could be of higher quality to enhance user engagement. Multimedia Quality received a perfect score of 5, indicating that the multimedia elements (e.g., videos, images) are of high quality and effectively support the website’s content. User Engagement Features scored 4, showing that while there are comment sections, more development could increase user interaction.

**Suggestions:**

* Integrate multimedia content more effectively into educational sections.
* Add more interactive features (e.g., quizzes, discussion forums) to boost user engagement.
* Enhance the quality of video and audio content for improved educational impact.

**5.8 Transparency, Authority, and Governance of Information**

The website performed strongly in Source Credibility (5), with clear credits given to authors and contributors, ensuring that research outputs are trustworthy. The Transparency of Governance scored 4, indicating that while the organizational structure is clearly outlined; additional information about leadership could enhance transparency. Funding Source Disclosure scored a 4, indicating that funding sources are typically disclosed, but a greater level of detail would enhance transparency. Clear Rules & Policies scored 5 meaning rules for fellowships and applications are well-communicated and clear. Citations and References: 5; the site provides comprehensive and unambiguous references for key publications, which boosts the site authority.

 Table 7: Evaluating the Transparency, Authority, and Governance of Information

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Rating (1-5)** | **Comments/Observations** |
| Source Credibility | 5 | Clear author and contributor credits enhance credibility. |
| Transparency of Governance | 4 | Clear, but more details on leadership structure would improve transparency. |
| Disclosure of Funding Sources | 4 | Generally disclosed, but more details would enhance transparency. |
| Clear Rules & Policies | 5 | Well-communicated and easy to understand. |
| Citations and References | 5 | Complete references to key publications add authority. |

**Suggestions:**

* Provide greater detail on leadership structure and governance to boost transparency. ·
* Include the disclosure or statement of potential funding sources in each research projects.
* Keep giving clear and comprehensive citations to back up research claims.

6. LIMITATION

This study has limitations, including subjective evaluation of a site's design, content, and functionality- which may be quite different from those in other people's eyes. It lacks direct feedback from diverse groups of users without limiting a interested parties coverage. It concentrates on front end content and neglects such technical aspects as speed or security. This study doesn't include its comparison with similar websites, which could offer greater insight as a consequence of those limitations that the study itself does not altogether capture both the site's performance and how its users experience it. Interface design significantly impacts task completion time and user satisfaction.

7. Conclusion

The study states that the KCHR page is a well-managed and valuable resource, containing vital information in connection with Kerala's cultural heritage, history research courses, academic opportunities and so forth. On its home page, the site describes itself and even includes a brief history of the Academy, which can be found at links on this page of text. It is as well clear that the site's cooperation with many academic and cultural organizations will help foster deeper awareness about Kerala. The website also identifies opportunities for research, such as scholarships, internships, financial aid, and so on-so that scholars and students alike may take Kerala's historical narratives as their subject of study. This website is functional rather than perfect in some areas. The search function, for example, has great room for innovation even though it does manage to display results within an acceptable amount of time. Part of feedback from the users suggests simplifying the language and making improvements to a few interactive functions. a couple of improvements to interactive functions offer. Higher frequency updates would further improve users' experiences here. Although the KCHR website is an important platform for showcasing Kerala's cultural and historical knowledge, it would benefit from greater accessibility and adaptability.

disclaimer (artificial intelligence)

The authors affirm that no generative AI technologies, such as Large Language Models (e.g., ChatGPT, Copilot) or text-to-image generators, were used during the writing or editing of this manuscript. All content has been independently developed and reviewed by the authors to ensure originality and academic integrity.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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