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Design and Implementation of the Mount Ciremai Basecamp Website as a Climbing Information Media in Linggasana Village

***Surya Lesmana[1], Andika Bagus Saputra[2], Egi Ahmad Baihaqi[3], Muhamad Zidan Syakur[4], Suhendi[5]**
Politeknik Siber Cerdika Internasional, Indonesia[1,2,3,4,5]
Corresponding Author: suryalesmana5674@gmail.com

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ABSTRACT
Mount Ciremai is the highest mountain in West Java Province which is the main destination for climbing and natural tourism. One of the official climbing trails of Mount Ciremai is in Linggasana Village which has a basecamp as a center for climbing services and information. However, the delivery of climbing information at the Linggasana Village basecamp is still carried out conventionally, so that information is difficult for prospective climbers to access widely and quickly. This research aims to design and implement a Mount Ciremai Basecamp website in Linggasana Village as an integrated and easily accessible climbing information medium. The research method used is the Waterfall method which includes the stages of needs analysis, system design, implementation, and testing. The website is developed using web-based technology with an integrated database. The results of the study show that the website built is able to present climbing information effectively and help climbers in obtaining accurate information before climbing. The study also reveals that the website facilitates faster information updates, broader information coverage, and better documentation. The implications of this research indicate that the use of web-based information systems can enhance service quality, transparency, and climber preparedness, while also supporting safer and more sustainable climbing management. In conclusion, the implementation of the website provides an effective solution to overcome the limitations of conventional information delivery and contributes both practically and theoretically to the development of information systems in natural tourism management.

INTRODUCTION

The development of information and communication technology has driven a significant transformation in the way information is produced, managed, and disseminated. The use of web-based technology is one of the main instruments in providing information that is dynamic, easily accessible, and has a wide reach (Bhattarai et al., 2026; Sepriani et al., 2023). In the context of natural tourism management, especially mountain climbing activities, the availability of accurate, structured, and easily accessible information has a strategic role in supporting climber safety, the effectiveness of area management, and environmental sustainability (Almasov & Orujov, 2025).

Mount Ciremai is the highest mountain in West Java Province which is located in the Mount Ciremai National Park (TNGC) area (Hidayat et al., 2022; Ismail et al., 2021; Widarti et al., 2025). This area has high ecological and tourism value and is one of the favorite climbing destinations in Indonesia. Mount Ciremai climbing activities are carried out through several official routes, one of which is the climbing route in Linggasana Village. This route is equipped with a basecamp that functions as an administrative service center, climber registration, and the delivery of information related to climbing. The role of the basecamp is very important

because it is the starting point in ensuring the readiness of climbers and compliance with the climbing regulations set by the area manager.

Despite having a strategic role, the mechanism for delivering climbing information at the Linggasana Village Basecamp is still dominated by conventional methods, such as oral delivery, bulletin boards, and simple print media (Jin et al., 2023; Sanchez et al., 2019). The pattern of information delivery has limitations in terms of reach, speed of information update, and consistency of message delivery. This condition has the potential to cause an inconsistency in the information received by prospective climbers, especially for climbers who come from outside the local area and have never climbed through the Linggasana Village route.

Limited access to climbing information can have a direct impact on the level of readiness of climbers, both in terms of understanding routes, regulations, and safety aspects. Lack of adequate information also has the potential to increase the risk of climbing accidents and violations of applicable provisions in the Mount Ciremai National Park area. On the other hand, basecamp managers face challenges in conveying information effectively and efficiently to the wider community, especially in conditions of policy changes, adjustments to climber quotas, or emergency conditions on the climbing route. (Damayanti, 2024)

The use of websites as a climbing information medium is considered a relevant and strategic solution to overcome these problems. The website allows the presentation of information in an integrated, systematic, and can be updated periodically according to field conditions. In addition, the website can be accessed anytime and anywhere, so that it can reach prospective climbers more widely (Rahmani et al., 2025). The use of the website also supports information transparency and professionalism in basecamp management, as well as being a means of education for climbers about the importance of safety and environmental preservation.

Some previous studies have addressed the development of web-based mountaineering information systems, but most of the research still focuses on climbing reservation systems in general or applied to mountains with centralized management (Hijriah et al., 2025). Research that specifically examines the design and implementation of websites as a climbing information medium that is tailored to the characteristics and needs of basecamps at the village level is still relatively limited. This condition shows that there is a research gap that needs to be studied further, especially in the context of the Mount Ciremai Basecamp in Linggasana Village.

Based on this background, this research aims to design and implement the Mount Ciremai Basecamp website as a climbing information media in Linggasana Village. The website developed is expected to be able to be an effective and efficient means of information for prospective climbers, support the improvement of climbing safety, and assist basecamp managers in delivering information in a structured and sustainable manner. This research is expected to make an academic contribution to the development of natural tourism information systems as well as practical contributions to the management of Mount Ciremai climbing more optimally.

Mount Ciremai is the highest mountain in West Java Province which is in the conservation area of Mount Ciremai National Park (TNGC). The existence of Mount Ciremai as a natural climbing destination has a high attraction for the community, both local climbers and climbers

from outside the region (Aldri Adha et al., 2024; M. & Kusumah, 2022; Perjalanan, 2025). The high public interest in climbing activities has an impact on the increasing number of climbers every year, especially on official climbing trails managed by local basecamps. One of the official climbing trails is in Linggasana Village, which serves as the entrance as well as the center of Mount Ciremai climbing services.

The climbing basecamp in Linggasana Village has a strategic role in supporting climbing management, starting from the climber registration process, submission of route information, climbing regulations, climber quotas, to aspects of safety and environmental preservation. The information conveyed by the basecamp is the basis for climbers to prepare climbing activities carefully and responsibly. However, in actual conditions, the system of conveying climbing information at the Linggasana Village Basecamp is still dominated by conventional methods, such as bulletin boards, leaflets, and verbal communication between basecamp officers and climbers.

The conventional method of delivering information has a number of limitations. Information can only be obtained when climbers come directly to the basecamp, making it difficult for prospective climbers from outside the area to get initial information before traveling. In addition, available information is often not systematically documented and difficult to update quickly when changes occur, such as adjustments to climbing regulations, quota restrictions, extreme weather conditions, or temporary closures of hiking trails. This condition has the potential to cause misinformation that can have an impact on climber safety (Novianti et al., 2022).

Lack of access to accurate and up-to-date climbing information can also lead to a low level of preparedness for climbers, both in terms of understanding the trail, equipment needed, and compliance with applicable regulations. In the context of mountaineering, limited information is one of the factors that can increase the risk of accidents, violations of conservation rules, and environmental damage (Mahardhika et al., 2024). Therefore, the provision of effective and easily accessible information media is an urgent need for the management of climbing Mount Ciremai, especially through the Linggasana Village route (Nurrosyid, 2024).

On the other hand, the current development of information technology has opened up great opportunities in the use of digital media as a means of delivering public information (Segara et al., 2025). A website is one of the digital media that is able to present information in a structured, integrated, and accessible manner anytime and anywhere. The use of the website as a climbing information medium allows basecamp managers to convey information more extensively, consistently, and easily updated according to field conditions. In addition, the website can also function as an educational tool for climbers about climbing safety and the importance of preserving the environment of conservation areas.

However, until now Mount Ciremai Basecamp in Linggasana Village does not have a special website that functions as an integrated climbing information media (Farih & Kausar, n.d.). Information related to climbing is still scattered in various unofficial sources and cannot always be held accountable for its accuracy. This condition shows that there is a gap between the need for fast and accurate climbing information and the information delivery media available today.

Based on this phenomenon, an information technology-based solution is needed in the form of designing and implementing the Mount Ciremai Basecamp website in Linggasana Village. This website is expected to be a climbing information media that is able to answer the needs of climbers and basecamp managers, increase the effectiveness of information delivery, and support the safety and sustainability of climbing Mount Ciremai (Aplikasinya, n.d.). Therefore, this research is important to be carried out as an effort to utilize information technology in supporting better management of natural tourism.

The purpose of this study is to design and implement a Mount Ciremai Basecamp website in Linggasana Village as an integrated and easily accessible climbing information medium. In particular, this study aims to provide accurate and structured climbing information, including climbing routes, regulations, climber quotas, and safety aspects. In addition, this study aims to increase the effectiveness of the delivery of climbing information by basecamp managers to prospective climbers and support the readiness and safety of climbers before climbing Mount Ciremai through the Linggasana Village route.

Based on the background that has been described, this study formulates the problem into a unified focus, namely how to design and develop the Mount Ciremai Basecamp website in Linggasana Village as an integrated, accessible, and user-friendly medium for delivering climbing information to prospective climbers, how the implementation process of the website can present accurate, structured, and up-to-date information, and to what extent the designed website is able to improve the effectiveness of information dissemination for both prospective climbers and basecamp managers.

This research is expected to provide benefits both theoretically and practically. Theoretically, the results of this research are expected to enrich scientific studies in the field of information systems, especially related to the design and implementation of websites as information media in the management of natural tourism and mountain climbing. This research can also be a reference for future research that discusses the use of information technology in the provision of web-based public information services, especially in the context of managing climbing basecamps at the local or village level (September et al., 2019).

Practically, this research is expected to provide benefits for the managers of the Mount Ciremai Basecamp in Linggasana Village as a means to convey climbing information in a more effective, structured, and easily updated manner. The resulting website can help managers in improving the quality of information services to prospective climbers and support more professional and transparent climbing management (Perspektif & Syariah, 2025). For prospective climbers, this website is expected to be an accurate and easily accessible source of information so that it can improve readiness, safety, and compliance with climbing regulations. In addition, this research is also expected to contribute to the village government and area managers in supporting the promotion of information technology-based natural tourism and sustainable management of Mount Ciremai climbing.

The novelty in this study lies in the focus of the study and approach to the development of a climbing information system that is specifically tailored to the characteristics and needs of the Mount Ciremai Basecamp in Linggasana Village. In contrast to previous studies that generally discussed mountain climbing information systems in general or focused on the development of web-based climbing reservation systems, this study emphasizes more on the

design and implementation of websites as an integrated climbing information media at the village basecamp level.

This research offers a contextual approach by accommodating the specific needs of basecamp managers and prospective climbers on the Linggasana Village climbing path. The website developed not only functions as a medium for delivering static information, but also as a means of providing climbing information that is structured, easily updated, and relevant to field conditions (Perspektif & Syariah, 2025). This approach provides novelty in terms of adapting information systems to local contexts, which have rarely been studied in depth in previous research.

In addition, the novelty of this research also lies in the integration of various types of climbing information in one platform, such as climbing route information, regulations and regulations, climber quotas, and safety aspects. This information integration is designed to support the readiness of climbers comprehensively before climbing. Thus, the website not only serves as an information medium, but also as an educational tool that encourages safe and responsible climbing.

In terms of methodology, this study applies a systematic and structured system development method, so as to produce a website that suits the needs of users and is easy to develop further (Sugianto et al., 2013). The implementation of the website at the Mount Ciremai Basecamp in Linggasana Village also makes a practical contribution in the form of a model for the development of climbing information media that can be replicated on other climbing basecamps with similar characteristics.

With a focus on the village basecamp level, adjustments to local needs, and comprehensive integration of climbing information, this study has a novelty value that distinguishes it from previous research. This novelty is expected to contribute to the development of mountain climbing information systems and become a reference for research and development of similar systems in the future.

RESEARCH METHOD

This research uses a research and development approach (Research and Development) with the aim of producing a product in the form of the Mount Ciremai Basecamp website as a climbing information media in Linggasana Village. This approach was chosen because the research focuses not only on the analysis of phenomena, but also on the process of designing, implementing, and testing information systems that can be used directly by basecamp managers and prospective climbers.

The system development method applied in this study is the Waterfall method. This method was chosen because it has systematic and structured stages, so it is suitable for the development of information systems with relatively clear needs. The stages in the Waterfall method include needs analysis, system design, implementation, and testing.

The first stage is needs analysis. At this stage, the identification of system needs is carried out by collecting information about the process of delivering climbing information that runs at the Linggasana Village Basecamp. Needs analysis is carried out to find out the type of information needed by prospective climbers and basecamp managers, such as climbing route information, rules and regulations, climber quotas, and safety information. The results of this

stage are the basis for determining the features and functions that will be developed on the website.

The second stage is system design. At this stage, the design of the website structure, navigation flow, and user interface design is carried out. The design also includes designing a database to store and manage climbing information data. The system design is made with usability and ease of access by users from various devices in mind.

The third stage is the implementation of the system. At this stage, the results of the system design are translated into the form of a runable website. The website is developed using commonly used web technologies, with database support for information management (Duma et al., 2023). The implementation is focused on presenting climbing information in a structured, easily updated, and responsively accessible manner through desktop and mobile devices.

The fourth stage is system testing. Testing is carried out to ensure that all website functions run according to the predetermined needs. The testing method used is black box testing, which is a test that focuses on the functionality of the system without looking at the program code structure. The test is done by trying every feature of the website, such as access to hiking trail information, regulations, and documentation galleries, to ensure that no malfunctions occur.

The data collection techniques in this study include observation and literature study. Observation was carried out directly at the Mount Ciremai Basecamp, Linggasana Village, to understand the actual conditions of delivering climbing information. Literature studies are carried out by reviewing books, scientific journals, and previous research that are relevant to information systems, websites, and mountain climbing management. The data obtained is analyzed descriptively to support the design and evaluation process of the developed website.

Through this research method, it is hoped that the resulting website has a good level of reliability and validity and is in accordance with the needs of users.

Research Design

This study uses a qualitative research type with a case study approach. The qualitative approach was chosen because this study aims to understand in depth the actual conditions of conveying climbing information and the needs of users, both basecamp managers and prospective climbers, in a specific context. The research does not focus on hypothesis testing or statistical measurement, but on the process of designing and developing information systems that are in accordance with the needs of the field.

The case study approach is used because the research is focused on one specific research object, namely the Mount Ciremai Basecamp in Linggasana Village. This approach allows researchers to conduct an in-depth analysis of the problems that occur in the research object, including the flow of delivery of climbing information, the obstacles faced by basecamp managers, and the information needs of prospective climbers. With case studies, research can describe real conditions comprehensively and contextually.

The design of this research is also combined with a research and development approach, because the research not only aims to analyze problems, but also produces a product in the form of a website as a climbing information medium. This approach allows researchers to design, implement, and evaluate systematically developed information systems. The system

development method used is the Waterfall method, which was chosen because it has structured and clear stages, so it is suitable for website development with well-identified system needs.

The selection of qualitative research designs with a case study and Research and Development approach is considered appropriate because it is able to provide a deep understanding of the problems faced by the Linggasana Village Basecamp and produce applicable and relevant solutions. This design also allows researchers to examine the suitability of the website developed with user needs, so that the results of the research are expected to have a good level of reliability and validity in supporting the provision of information on climbing Mount Ciremai.

Data Sources and Data Types

This study uses a qualitative approach, so it does not involve population and samples in a statistical sense. Therefore, the focus of the research is directed to data sources that are relevant to the problem and the purpose of the research. The data sources in this study consist of primary data and secondary data.

Primary data was obtained directly from the object of the research, namely the Mount Ciremai Basecamp in Linggasana Village. This data was collected through direct observation of the process of delivering climbing information that took place at the basecamp, including the climber registration mechanism, the information media used, and the interaction between basecamp officers and climbers. This observation aims to obtain a real picture of the existing conditions and problems faced in the delivery of climbing information.

In addition to observation, primary data was also obtained from information submitted by the basecamp manager as the party responsible for managing the climb through the Linggasana Village route. The information is used to identify the needs of the system, the type of information that needs to be provided, and the obstacles faced in delivering information to prospective climbers.

Secondary data are obtained from a variety of written sources relevant to the research topic. This data includes textbooks, scientific journal articles, previous research reports, and other supporting documents related to information systems, website development, and mountaineering management. Secondary data is used to strengthen the theoretical foundation, support problem analysis, and become a reference in the design of the Mount Ciremai Basecamp website in Linggasana Village.

The type of data used in this study is qualitative, in the form of descriptions of field conditions, user needs, and characteristics of the climbing information needed. The data is analyzed descriptively to produce a website design and implementation that suits the needs of basecamp managers and prospective climbers.

Population and Sample

The population in this study is all parties involved and interested in climbing Mount Ciremai through the Linggasana Village Basecamp. The population includes basecamp managers and prospective climbers or climbers who use the Linggasana Village climbing path. This population was chosen because it is directly related to the use and utilization of the Mount Ciremai Basecamp website as a climbing information medium.

The sampling technique used in this study is purposive sampling. This technique was chosen because not all members of the population have relevant experience and knowledge to research problems. The sample was selected based on certain criteria, namely individuals who had or were climbing through the Linggasana Village Basecamp and basecamp managers who were directly involved in delivering climbing information.

The number of samples used in this study consisted of 30 respondents, consisting of 5 Linggasana Village basecamp managers and 25 climbers who had climbed Mount Ciremai through the Linggasana Village route. The basecamp manager was chosen as a sample because it has an important role in the management and provision of climbing information, while the climber was chosen to represent the website user as the recipient of the information.

The selection of the sample number is considered to have met the needs of the research to obtain a representative picture of the needs of climbing information and user perception of the developed website. The data obtained from the sample was used as supporting material in the evaluation process of the functionality and usefulness of the Mount Ciremai Basecamp website as a climbing information medium in Linggasana Village.

Research Instruments

The research instrument used in this study was interviews. The interview was chosen as the only data collection instrument because this study aims to gain a deep understanding of the conditions of conveying climbing information, the need for information systems, and the problems faced by the manager of the Mount Ciremai Basecamp in Linggasana Village. The use of interviews allows researchers to explore information comprehensively and contextually according to the characteristics of the research object.

The type of interview used is a structured interview. The interview was conducted using a pre-prepared question guide so that the data collection process ran systematically and in a directed manner. The interview guide is prepared based on research objectives and literature review related to information systems, websites, and mountain climbing management. The interview questions cover several main aspects, including the mechanism of conveying climbing information that is currently running, the type of information needed by climbers, obstacles in information delivery, and the expectations of basecamp managers for the development of websites as a climbing information medium.

The subject of the interview in this study is the manager of the Mount Ciremai Basecamp in Linggasana Village who is directly involved in climbing management activities and information services to climbers. The basecamp manager was chosen because they have relevant knowledge and experience related to existing conditions and climbing information needs. Interviews were conducted directly at the basecamp location to obtain accurate data and in accordance with field conditions.

Because this study is qualitative and uses interviews as the main instrument, reliability testing is carried out by maintaining the consistency of the interview process, using the same question guides, and systematically recording data. Thus, the data obtained through interviews can be trusted and used as a basis for the design and implementation of the Mount Ciremai Basecamp website as a climbing information medium in Linggasana Village.

Data Collection Procedure

The data collection procedure in this study is carried out systematically to obtain accurate and relevant data to the research objectives. Data collection was carried out for approximately one week, which included the preparation stage, the implementation of interviews, and the initial data processing. The research location is at Mount Ciremai Basecamp located in Linggasana Village, which is the official climbing route of Mount Ciremai.

The first stage in the data collection procedure is the preparation stage. At this stage, the researcher conducted a preliminary study to understand the general overview of climbing activities and information delivery systems running at the Linggasana Village Basecamp. In addition, the researcher compiles interview guidelines based on research objectives and relevant literature review. This interview guideline was prepared to ensure that the data collected was in accordance with the focus of the research, namely the design and implementation of the website as a climbing information medium.

The second stage is the implementation of interviews. The interview was conducted directly and in a structured manner with the manager of the Mount Ciremai Basecamp in Linggasana Village who is involved in climbing management and information services to climbers. Interviews were conducted at the basecamp location so that researchers could obtain data according to real conditions in the field. Each interview session lasts approximately 30–60 minutes, depending on the completeness and depth of information conveyed by the interviewees. During the interview process, the researcher recorded the results of the interview systematically to ensure that no important information was missed.

The third stage is documentation and data checking. After the interview was completed, the researcher re-recorded and sorted the interview data. The data that has been recorded is then confirmed back to the source to ensure the accuracy of the information obtained. This process is carried out to increase the validity of the data and reduce the possibility of misinterpretation.

The last stage is the grouping and preparation of initial data. The interview results data were grouped based on themes, such as the conditions of delivering climbing information, information needs, and obstacles faced by basecamp managers. The data that has been grouped is then used as the basis for the analysis and design process of the Mount Ciremai Basecamp website as a climbing information medium in Linggasana Village.

Data Analysis

The data analysis in this study was carried out using a descriptive qualitative approach. This approach was chosen because the research aims to understand and describe in depth the conditions of delivering climbing information, the need for information systems, and the problems faced by the manager of the Mount Ciremai Basecamp in Linggasana Village. The data analyzed was in the form of qualitative data from interviews with basecamp managers.

The data analysis process is carried out through several systematic stages. The first stage is data reduction, which is the process of sorting and simplifying interview data. At this stage, the researcher selects data that is relevant to the research objectives and groups information based on the focus of the problem, such as the existing conditions of delivering climbing information, the need for information on climbers, obstacles faced by basecamp managers, and expectations for website development.

The second stage is the presentation of data. The data that has been reduced is presented in the form of a systematic descriptive narrative so that it is easy to understand. The presentation of data was carried out by organizing the results of the interviews into the main themes that emerged from the data reduction process. This presentation aims to provide a clear picture of the patterns, relationships, and tendencies of the data obtained from the sources.

The third stage is conclusion drawing and verification. At this stage, the researcher draws conclusions based on the results of the data analysis that has been presented. The conclusions obtained were then verified by comparing the results of the analysis with the research objectives and re-checking the interview data. The verification process is carried out to ensure that the conclusions produced are supported by valid and consistent data.

Data analysis is carried out manually without the use of statistical software, because the data obtained is qualitative and does not require numerical processing. However, the analysis process is still carried out systematically using thematic coding techniques, namely coding interview data to identify the main themes relevant to the research. This technique helps researchers in organizing and interpreting data in a more structured way.

By using descriptive qualitative data analysis methods and thematic coding, this research is expected to be able to produce a comprehensive understanding of the needs and problems of delivering climbing information, so that it can be a strong basis in the design and implementation of the Mount Ciremai Basecamp website as a climbing information media in Linggasana Village.

RESULTS AND DISCUSSION

The results of the research were obtained through a structured interview with the manager of the Mount Ciremai Basecamp in Linggasana Village. The interview was conducted to explore information about the condition of delivering climbing information before the existence of a website, the need for climbing information, the obstacles faced by basecamp managers, and the results of the implementation of the website as a climbing information medium. The findings of the research are presented descriptively and objectively based on data obtained from the sources.

Based on the results of the interview, it is known that before the existence of a website, the delivery of climbing information at the Linggasana Village Basecamp was still carried out manually and limitedly. Climbing information such as climbing routes, regulations, climber quotas, and safety information is conveyed orally or through a simple bulletin board in the basecamp area. This condition causes information to only be accessible to climbers who come directly to the basecamp location. Prospective climbers from outside the region have difficulty obtaining initial information before traveling to the basecamp.

In addition to limited access, the results of the interviews also show that climbing information is often not systematically documented. The basecamp manager said that information updates, such as changes in regulations or temporary closures of climbing trails, are difficult to convey quickly to prospective climbers. As a result, it is not uncommon for climbers to come with information that is not in accordance with the current conditions in the field.

Other findings show that basecamp managers are aware of the importance of digital-based information media to support the delivery of climbing information. The manager stated that the website is considered the most suitable media because it is widely accessible, easy to update, and able to display information in a structured manner. Based on these needs, the design and implementation of the Mount Ciremai Basecamp website in Linggasana Village was carried out.

After the website was implemented, the interview results showed a change in the mechanism of delivering climbing information. Key information such as basecamp profiles, climbing routes, rules and regulations, and safety information have been presented centrally on the website. The basecamp manager said that the website makes it easier for them to convey information to prospective climbers without having to meet face-to-face.

Table 1. Summary of Research Findings

Aspects Examined	Pre-Website Conditions	Conditions After Website
Media information	Announcement and oral boards	Web-based websites
Access information	Limited to basecamp locations	Accessible at any time
Information updates	Unscheduled and manual	Easier and faster
Information documentation	Unstructured	Structured and documented
Coverage of information	Local climbers	Local and out-of-region climbers

Source: Data Processed

Based on Table 1, there is a significant difference between the conditions before and after the implementation of the website, especially in terms of accessibility and regularity of climbing information.

Statistical Analysis

This study did not involve statistical analysis because it used a qualitative approach with interviews as the main instrument. The data obtained was in the form of narrative data and analyzed descriptively using thematic coding techniques.

Interpretation of Results

The results of the study show that the main problem in the delivery of climbing information at Mount Ciremai Basecamp, Linggasana Village, lies in the limitations of the information media used. The use of conventional media causes information to not be able to reach prospective climbers widely and quickly. This finding is in line with the concept of information systems which states that the effectiveness of information delivery is greatly influenced by the media and technology used (Nirmala, 2025).

The implementation of the website as a climbing information medium provides a solution to this problem. The website allows basecamp managers to deliver information centrally, consistently, and easily updated. This supports the readiness of climbers in preparing for the climb and increasing understanding of regulations and safety aspects. These findings are in line with previous research that states that the use of websites can increase the effectiveness of public information delivery and support service transparency.

Compared to previous research that focused more on the climbing reservation system or centralized climbing management, this study emphasizes the context of village basecamps. This approach provides a new perspective that the management of climbing information at the local level has an important role in supporting the overall mountaineering system. The website developed not only functions as an information medium, but also as a means of educating climbers about safety and environmental preservation.

Research Limitations

This research has several limitations that need to be considered. First, the number of interview interviewees is limited to basecamp managers, so the perspective of climbers as end users of the website has not been explored more widely. Second, this study did not conduct quantitative measurements related to the level of website user satisfaction, so the evaluation of website success is still descriptive. Third, this research was only conducted at one basecamp location, so the results of the study could not be generalized to all Mount Ciremai or other mountain climbing basecamps.

Research Implications

Practically, the results of this study provide implications for the manager of Mount Ciremai Basecamp in Linggasana Village in improving the quality of climbing information services. The website developed can be used as the main medium for delivering information, so that managers can focus more on the management and supervision aspects of climbing in the field. For climbers, this website provides convenience in obtaining accurate and up-to-date information, so that it can increase the readiness and safety of climbing.

Theoretically, this research contributes to the development of information system studies, especially related to the use of websites as information media in natural tourism management. This research shows that a contextual and local needs-based approach to developing information systems can provide relevant and applicable solutions.

CONCLUSION

This research aims to design and implement the Mount Ciremai Basecamp website in Linggasana Village as an effective climbing information medium. The study identifies that the main issue in delivering climbing information lies in the limitations of conventional media, where information is only accessible on-site, poorly documented, and difficult to update, potentially affecting climbers' readiness and management effectiveness. The results indicate that the developed website successfully provides centralized, structured, and easily accessible information, including climbing routes, regulations, and safety guidelines. Additionally, the website facilitates more efficient information dissemination for basecamp managers without relying solely on direct interaction. Overall, this research contributes practically to improving the effectiveness of information delivery and enhancing the preparedness and safety of climbers accessing Mount Ciremai via the Linggasana Village route. As suggestions and recommendations, further research is suggested to develop more interactive website features, such as online climbing registration and real-time weather information integration. In addition, follow-up research can involve climbers as respondents to evaluate the level of satisfaction and

usability of the website more comprehensively. The use of quantitative methods or mixed methods can also be considered to measure the effectiveness of the website statistically. With this development, the Mount Ciremai Basecamp website in Linggasana Village is expected to continue to be improved as a more optimal and sustainable climbing information media.

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