Implementation of CRISP-DM for Social Network Analysis (SNA) of Tourism and Travel Vlog Content Reviews

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Abstract—Technological developments have facilitated the process of creating and publishing digital content on various platforms while influencing application user behavior in terms of consumption. In the context of tourism and travel vlog content, the publication of travel content influences perceptions and triggers the intention of visiting the destination in which the video is taken. In addition, content reviews can be seen in the comment column, which shows the response from content creators to tourists related to the topics discussed in the video content. This study aims to analyze content reviewers’ social network patterns and sentiments using the Cross-Industry Standard Process for Data Mining (CRISP-DM) approach. Meanwhile, the model used in this study is Social Network Analysis (SNA) and Sentiment Classification based on analyzing network patterns of “whom, mention whom,” and “who replies who,” based on diameter, density, reciprocity, centralization, and modularity. The stages in the CRISP-DM method consist of business understanding, data understanding, modeling, evaluation, and deployment. The results of this study show that at the business understanding stage, tourism and travel vlog content reviews with Waseda Boys Indonesia Trip video comment datasets and Waseda Boys Trip to Manado and Likupang video and Waseda Boys Trip to Labuan Bajo video. Scraping content review data from the YouTube platform is carried out at the data understanding stage based on author, description, Global Unique Identification (GUID), like_count, link, pub_date, and author channel URL. In the modeling stage, the interaction pattern between authors in the form of networks is visualized and analyzed based on clusters. At the evaluation stage, an evaluation is carried out based on sentiment related to content related to tourism activities. At the deployment stage, recommendations for digital tourism marketing strategies based on tourism and travel vlogs can be known. Thus, tourism and travel vlog content play an important role in triggering tourism intentions so that it is effectively used in destination marketing strategies in the digital era.

Keywords: CRISP-DM; SNA; Tourism; Travel Vlog; Content

1. INTRODUCTION

The utilization of influencers in tourism and travel vlog content has become a crucial element in stimulating tourist influx. Influencers exert significant influence in molding the perceptions and decisions of prospective travelers [1]. This influence is substantiated by an array of studies that highlight the potency of influencers in fostering engagement and interest across diverse destinations, hotels, and travel experiences [2]. Scholars emphasize influencer content’s authentic and relatable nature as a paramount factor resonating with audiences actively seeking genuine travel recommendations [3]. The potential of influencers is to contribute substantially to destination marketing strategies, augmenting the overall appeal of a locale through their adept storytelling and compelling visual narratives [4]. In summation, it is evident that influencers are pivotal in attracting tourists and shaping the narrative and allure of travel destinations through their impactful and captivating content [5].

The digital transformation era in Indonesia has sparked heightened interest in video content, leading audio-visual platforms to emerge as compelling mediums for tourism marketing. The digital transformation has significantly captured attention, fostering a proclivity towards video content [6]. The pervasive use of digital technologies and increased internet penetration has led to a surge in online video consumption [7]. Scholars argue that this shift in consumer behavior directly impacts the tourism industry, as audiences increasingly rely on visual content to inform travel decisions [8]. The potential of audio-visual platforms as potent tools for destination marketing, leveraging immersive storytelling and captivating visuals to showcase the unique facets of the Indonesian tourism [9]. In conclusion, the digital transformation era in Indonesia not only accentuates the allure of video content but also underscores the strategic importance of leveraging audio-visual platforms for effective tourism promotion [10].

The popularity of tourism and travel vlogs in Indonesia has soared, with numerous content creators transitioning into influential figures within the realms of culinary and adventure tourism due to their substantial viewer and subscriber base [11]. The central assertion is that tourism and travel vlogs have gained widespread recognition in the Indonesian field [12]. Many content creators have successfully cultivated large audiences and garnered high subscription rates on digital platforms [13]. This surge in popularity has positioned these creators as influential figures, particularly within the culinary exploration and adventurous travel [14]. The impact of these influencers highlights their ability to shape travel preferences and influence consumer decisions [15]. In conclusion, the ascendancy of tourism and travel vlogs in Indonesia is underscored by the notable success of content creators who, with their considerable viewership and subscriber base, have become influential figures, significantly impacting the landscape of culinary and adventure tourism.

The pivotal facet of tourism publications and travel vlogs lies in the positive responses from application users, indicative of their interest in content depicting the backdrop of tourist destinations or specific activities.
within those locales. The significance of user responses as a critical element in evaluating the impact of tourism content [16]. The engagement and reactions from users serve as tangible indicators of the effectiveness of the content in capturing audience interest [17]. In addition, the value of user feedback is a gauge for the resonance of travel narratives and visual representations [18]. Consequently, a positive response reflects not only the quality of the content but also the alignment of the material with the preferences and expectations of the audience [19]. In conclusion, the essence of tourism publications and travel vlogs lies in the constructive responses from users, affirming the pertinence and allure of content showcasing tourist destinations or specific activities, thereby contributing to the ongoing discourse on effective tourism communication strategies.

This research aims to employ the Cross-Industry Standard Process for Data Mining (CRISP-DM) method to analyze interaction patterns and author networks within the video content review column using Social Network Analysis (SNA). The study's objective involves applying CRISP-DM and SNA to examine interaction dynamics in video content reviews. The CRISP-DM is a systematic and widely recognized methodology for conducting data mining projects, providing a structured approach to tasks such as data understanding, preparation, modeling, evaluation, and deployment [20]. In the context of this research, the focus on SNA signifies a deliberate effort to unravel the intricate web of connections and relationships among authors within the domain of video content reviews [21]. The relevance of these methodologies asserts their efficacy in uncovering valuable insights into user interactions and collaborative patterns. In conclusion, adopting CRISP-DM and SNA in this study reflects a methodologically robust approach to dissecting author interactions, contributing to the broader landscape of research methodologies in data mining and social network analysis.

Through the application of Social Network Analysis (SNA) models, the intricate web of author interactions commenting on video content can be discerned, thereby facilitating the expansion of social networks among content creators focusing on specific themes or topics within the tourism [22]. The capability of SNA to unveil the underlying patterns of connections among authors engaged in the video content commentary [23]. The SNA offers a systematic framework to analyze and visualize relationships, enabling a comprehensive understanding of the social dynamics within the content creator community [24]. The significance of leveraging SNA is to foster collaboration and networking among authors with a shared focus on specific tourism-related themes or topics [24]. Consequently, adopting SNA is a strategic tool to enhance social connectivity, facilitating the exchange of ideas and collaborations among content creators within the tourism niche, thereby contributing to a more vibrant and interconnected community [25]. In conclusion, using SNA models proves instrumental in deciphering author interconnections, providing avenues for expanding social networks among content creators specializing in distinct tourism themes or topics.

The urgency of this research lies in the critical need to analyze interaction patterns and social networks to enhance the performance of destination marketing, particularly within the realm of creative content such as Storynomic. The significance of the study is placing it within the context of the imperative to improve the effectiveness of tourism destination promotion [26]. Analyzing interaction patterns and social networks provides valuable insights into audience engagement and preferences, which is essential for devising strategic marketing approaches [27]. Creative content platforms like Storynomic are increasingly important in shaping contemporary marketing strategies for tourism destinations [28]. Recognizing the impact of social dynamics on destination marketing, this research aims to contribute to optimizing content-driven promotional efforts [29]. In conclusion, the research is positioned as a timely and essential endeavor, offering potential enhancements to the performance of destination marketing by unraveling interaction patterns and social networks within the context of creative content platforms such as Storynomic.

The distinction of this research from other studies with similar topics lies in the utilization of the CRISP-DM framework, where the deployment phase of this study emphasizes explicitly three crucial elements: tourism and travel vlog content as a tourism marketing communication strategy, the role of influencers in boosting travel intention and intensity, and storynomic as an intriguing content platform for promoting tourism destinations in Indonesia. The unique approach taken in this research, which strategically focuses on the deployment phase of CRISP-DM, offers a comprehensive exploration of the interplay between tourism vlog content, influencer dynamics, and the utilization of storynomic as a distinctive content strategy [30]. The CRISP-DM provides a structured methodology to guide the research process, ensuring a thorough and systematic examination of these critical aspects [36]. The significance of adopting specific frameworks like CRISP-DM is to enhance the rigor and depth of research investigations. In conclusion, the research distinguishes itself through its deliberate emphasis on the deployment phase of CRISP-DM. It provides nuanced insights into the intersections of tourism marketing strategies, influencer roles, and creative content platforms, particularly Storynomic, within the Indonesian tourism context.

A recommendation for further research involves the sentiment analysis of datasets by comparing Social Network Analysis (SNA) outcomes with sentiment classification based on Support Vector Machine (SVM) algorithms. The suggested avenue for extending the current study highlights the importance of delving into sentiment analysis within the context of the dataset. Combining SNA results with sentiment classification using SVM algorithms offers a comprehensive understanding of the emotional undertones embedded in the interactions within the network. There is synergistic potential for integrating these methodologies, as it allows for a more nuanced interpretation of the social dynamics and sentiment expressions present in the dataset. In conclusion,
pursuing further research in this direction holds promise for refining our understanding of sentiment nuances and enriching the insights derived from Social Network Analysis through the lens of sentiment classification based on SVM algorithms.

2. RESEARCH METHODOLOGY

2.1 Cross-Industry Standard Process for Data Mining (CRISP-DM)

The Cross-Industry Standard Process for Data Mining (CRISP-DM) comprises several vital stages, initiating with business understanding and data understanding, followed by data preparation, modeling, evaluation, and deployment. The sequential nature of the CRISP-DM methodology begins with a comprehensive grasp of the business objectives and the intricacies of the available data. The subsequent stages involve the preparation and transformation of data, model development, evaluation of the model's effectiveness, and, ultimately, deploying the model into practical applications. The pragmatic utility of CRISP-DM is that it provides a systematic and iterative approach, facilitating the exploration of complex datasets and the extraction of meaningful patterns. In conclusion, the step-by-step progression of CRISP-DM enables a thorough and structured exploration of the data mining process, ensuring robustness and reliability in extracting valuable insights from diverse datasets.

![Cross Industry Standard Process for Data Mining (CRISP-DM)](image)

Figure 1. Cross-Industry Standard Process for Data Mining (CRISP-DM)

Figure 1 shows the stages of CRISP-DM applied in this research. The business understanding stage in the context of Tourism and Travel Vlog Videos, exemplified by instances such as “Waseda Boys Trip to Manado & Likupang” and “Waseda Boys Trip to Labuan Bajo,” emphasizes comprehending the objectives and intricacies of the tourism content creation process—the specific application of the business understanding phase to tourism vlog videos. The stage involves a thorough grasp of the overarching goals, target audience, and contextual nuances associated with creating travel vlog content, as showcased in the mentioned examples. The importance of aligning business understanding with the unique challenges and opportunities presented by the tourism and travel vlog genre. In conclusion, integrating the business understanding stage within the realm of Tourism and Travel Vlog Videos enhances the strategic planning and execution of content creation, ensuring alignment with the overarching goals of engaging and attracting a diverse audience.

The data understanding stage focuses on textual data from YouTube, particularly within the Description and Chat/Comment columns. In the context of this research, the data scraped encompasses crucial elements, including author details, description content, Global Unique Identification (GUID), like_count, link, publication date (pub_date), and the author’s channel URL. The targeted nature of data understanding about textual information extracted from these specific sources within the YouTube platform. The chosen data variables are carefully selected to capture critical aspects essential for the subsequent stages of analysis. The meticulous consideration of data selection to ensure relevance and depth in the exploration of sentiments and interactions within the Tourism and Travel Vlog Video domain. In conclusion, the deliberate focus on textual data from the Description and Chat/Comment columns, encompassing specified variables, underscores the nuanced approach in harnessing relevant information for the subsequent phases of the research.

Within the framework of this research, the modeling stage employs Social Network Analysis (SNA) to glean insights into interaction patterns and author networks embedded within the chat/comments section of the video content. The specific application of SNA in modeling emphasizes its utility in unraveling the intricate web of connections and relationships among authors participating in video discussions. The SNA is recognized for its ability to map and analyze social structures, offering a robust approach to visualize and interpret complex interactions within online communities. In addition, the appropriateness of SNA in modeling social dynamics,
particularly in digital environments. In conclusion, the strategic application of SNA in the modeling stage enhances the comprehension of interaction patterns. It provides a valuable foundation for understanding the collaborative networks among authors within video content's chat/comments section.

The deployment stage in the research process recommends Tourism and Travel Vlog Content as a potent digital tourism marketing medium capable of eliciting travel intentions. The significance of deploying tourism and travel vlog content as a strategic approach in digital tourism marketing. The deployment of such content, characterized by immersive storytelling and compelling visuals, is deemed effective in capturing the attention and interest of potential tourists. The persuasive impact of vlog content in influencing travel intentions, attributing this efficacy to the authentic and experiential nature of the narratives presented. In conclusion, the deployment of Tourism and Travel Vlog Content emerges as a commendable recommendation for digital tourism marketing, with the potential to capture and stimulate the audience's travel intentions.

2.2 Social Network Analysis (SNA): The Network Properties Configuration using Gephi

The stages within the Social Network Analysis (SNA) method entail a systematic progression beginning with data collection and preparation, followed by network construction, analysis, and interpretation. The central assertion underscores the structured nature of SNA, commencing with the meticulous gathering and formatting of relevant data. Supporting this, the subsequent stages involve the creation of a network representation, followed by an in-depth analysis of the connections and interactions within the constructed network. Opinions within the academic discourse emphasize the methodical application of SNA as an invaluable tool for uncovering hidden structures and relationships in various social contexts. In conclusion, the successive stages of data collection, network construction, analysis, and interpretation in the SNA method provide a comprehensive framework for understanding and extracting meaningful insights from complex social networks.

Figure 2 shows the network properties configuration using the Gephi application. The average degree of nodes in Social Network Analysis (SNA) is a fundamental metric representing the average number of connections or ties each node has within a network. In addition, this metric is essential in providing a quantitative measure of node connectivity. The average degree calculation involves summing the degrees of all nodes and dividing the total by the number of nodes, offering a comprehensive overview of the overall connectedness of the network. The centrality of the average degree metric not only reflects the structural characteristics of the network but also aids in identifying central or influential nodes. In conclusion, the average degree in SNA is a pivotal metric, contributing to a nuanced understanding of network connectivity and playing a crucial role in network analysis and interpretation.

In addition to utilizing Gephi, this research employs Netlytic in the data visualization process. It incorporates the Netlytic Website alongside Gephi for a more comprehensive approach to visualizing data. Netlytic offers complementary features and functionalities that enhance the visualization capabilities, allowing for a multifaceted exploration of the intricate patterns and relationships within the analyzed data. The benefit of integrating multiple visualization tools is that it ensures a more robust representation of complex datasets. In conclusion, the combination of Gephi and Netlytic in this research enhances the depth and versatility of data visualization, providing a nuanced and comprehensive perspective on the structural dynamics and relationships within the context of the study, as shown in the figure below.
Figure 3 shows the Netlytic website performance of the SNA report. Through the instrumental use of Gephi and Netlytic, statistical data of tourism and travel vlogs can be comprehensively analyzed to ascertain both degree centrality and Betweenness Centrality. The effectiveness of employing Gephi and Netlytic as tools facilitates a comprehensive examination of the structural dynamics inherent in tourism and travel vlog data. The Gephi and Netlytic offer complementary functionalities, enabling the exploration of node centrality metrics such as degree and Betweenness Centrality. The suitability of such instruments for capturing the nuances of network structures and identifying influential nodes in the context of tourism and travel vlogs. In conclusion, the combined use of Gephi and Netlytic provides a robust analytical framework, allowing an in-depth understanding of the centrality metrics crucial for unraveling the complexities within the tourism and travel vlog networks.

The Degree Centrality equation is a fundamental Social Network Analysis (SNA) metric representing the number of direct connections a node has within a network. The significance of Degree Centrality as a quantitative measure of a node's prominence is based on the sheer number of ties it maintains. The Degree Centrality equation divides the number of edges connected to a node by the total number of nodes minus one. This metric provides valuable insights into the relative importance of nodes within a network, aiding in identifying influential or central entities. Degree Centrality's centrality in gauging a network's structural characteristics emphasizes its simplicity and applicability across diverse social contexts. In conclusion, the Degree Centrality equation is a foundational tool in network analysis, offering a straightforward yet powerful method for quantifying and comparing the centrality of nodes within complex networks.

\[ C_d(i) = \frac{d(i)}{n-1} \] (1)

Description
\( C_d \) : Degree Centrality
\( D \) : Number of Links
\( N \) : Total Population

The Betweenness Centrality equation, a pivotal metric in Social Network Analysis (SNA), measures the extent to which a node acts as a bridge or intermediary between other nodes in a network. The crucial role of Betweenness Centrality is in identifying nodes that serve as critical connectors, facilitating the flow of information within the network. The calculation involves assessing the number of shortest paths that traverse a particular node, providing insights into its brokerage potential. The Betweenness Centrality metric is particularly valuable for unveiling nodes that act as central conduits for communication, thereby influencing the overall network structure. In addition, Betweenness Centrality's utility in uncovering nodes is critical for maintaining network cohesion and facilitating efficient information transfer. In conclusion, the Betweenness Centrality equation stands as a vital tool in network analysis, offering a nuanced perspective on the role of nodes in bridging connections and fostering efficient communication within complex networks.

\[ C_b = \frac{g_{ij}PK}{n^2 - 3n + 2} \] (2)

Description
\( C_b \) : betweenness centrality
\( G_{ij}P/K \) : Number of Stages
\( G_{ij} \) : Total Distance
\( n^2 - 3n + 2 \) : Total Population

This study employs the Gephi application to compute critical metrics, including average degree, average weighted degree, network diameter, graph density, modularity, and eigenvector centrality. The methodological choice of utilizing Gephi as a robust analytical tool to calculate diverse network metrics. Gephi's functionalities allow for the comprehensive assessment of the network structure by providing insights into node connectivity, network density, modularity, and the influence of nodes based on eigenvector centrality. In addition, Gephi is...
suitable for network analysis, particularly with its user-friendly interface and diverse visualization options. In conclusion, applying Gephi in this research facilitates the computation of essential network metrics. It ensures a systematic and efficient exploration of the intricate relationships and patterns within the analyzed network.

3. RESULT AND DISCUSSION

The evolution of research on Social Network Analysis (SNA) underscores that interaction patterns among technology users yield valuable insights for optimizing monitoring functions in both information systems and tourism. In addition, the significance of understanding user interaction patterns within technological frameworks. The burgeoning body of research on SNA demonstrates its applicability in gleaning meaningful information from user interactions, making it a valuable tool for enhancing surveillance and monitoring mechanisms [37]. The relevance of SNA in deciphering complex relationships and interactions within technological and tourism contexts provides a foundation for improving monitoring processes [38]. In conclusion, the progression of SNA research accentuates its potential for extracting valuable insights from user interactions, offering avenues for optimizing monitoring functions in diverse domains such as information systems and tourism.

This research adopts data-mining techniques to acquire a dataset using the Python programming language through various plugins. In addition, the CRISP-DM approach harnesses data-mining tools in Python to gather relevant datasets for analysis [39]. Using programming plugins allows for systematically extracting pertinent information aligned with the research objectives. Following data retrieval, the subsequent pre-processing phase must refine and structure the data appropriately, facilitating its presentation as a word cloud. The efficacy of employing data-mining techniques in Python for acquiring and preparing datasets underlines the significance of this approach in uncovering valuable insights from complex datasets. In conclusion, integrating data-mining techniques, particularly in Python, is a strategic tool to enable a streamlined process from data acquisition to meaningful representation by creating word clouds.

Figure 4 shows the data scraping process using Python in the colaboratory platform. Following the data scraping process, a crucial subsequent step involves data cleansing and visualization in a word cloud. Data cleaning and visualization play a pivotal role as integral components in the research workflow post-data extraction. Data cleaning is imperative to eliminate noise, inconsistencies, and irrelevant information from the scraped data, ensuring the reliability and quality of the dataset. Concurrently, visualization through a word cloud effectively represents the dataset's most frequent and significant terms, offering a concise and accessible overview. The significance of these post-scraping processes is that they contribute to refining the dataset and translating complex information into a visually comprehensible format. In conclusion, the meticulous execution of data cleaning and subsequent word cloud visualization enhances the interpretability and clarity of the extracted data, facilitating a more nuanced understanding of the underlying patterns and trends within the dataset.

Figure 5. Pre-Processing Data and Wordcloud Visualization
Figure 5 shows the pre-processing data and word cloud visualization using Python. However, by analyzing data from tourism and travel vlog content reviews, each author can be scrutinized through a Social Network Analysis (SNA) approach to identify viewers interested in the respective video content. The applicability of SNA in dissecting the interactions and relationships among authors and viewers within the realm of travel vlogs. The SNA provides a systematic framework to examine the connections forged through comments and interactions, enabling the identification of viewers who express interest or engagement with the content. The efficacy of SNA in uncovering underlying patterns in user interactions fosters a more nuanced understanding of viewer preferences and engagement levels. In conclusion, leveraging SNA in analyzing tourism and travel vlog content reviews allows for a comprehensive exploration of viewer dynamics. This contributes to an enhanced comprehension of audience engagement in digital travel content, as shown in the figure below.

![Figure 6. Chain Network “Who Replies to Whom” from Waseda Boys Trip to Labuan Bajo Content](image)

Figure 6 shows the Chain Network “Who Replies to Whom” from the Waseda Boys’ Video Trip to Labuan Bajo. Examining the Chain Network reveals specific network metrics, including a diameter of 4, density of 0.000612, reciprocity at 0.000000, centralization of 0.001972, and a modularity of 0.998500. The informative value derived from these metrics sheds light on the patterns of replies and interactions within the Labuan Bajo travel vlog’s comment chain network. The calculated diameter of 4 indicates the maximum distance between any two nodes in the network, while the density provides insights into the compactness of the network. The significance of these metrics in capturing the intricacies of reply chains and the nature of reciprocal engagements among viewers within the Labuan Bajo content. In conclusion, the comprehensive set of metrics, including centralization and modularity, offers valuable insights into the structure of reply chains, contributing to a nuanced understanding of the interactive dynamics within the comment network of the Labuan Bajo travel vlog.
Figure 7. Netlytic Report of SNA from the Waseda Boys’ Trip to Labuan Bajo Content

Figure 7 shows the Netlytic report of SNA from the Waseda Boys’ Video Trip to Labuan Bajo. Based on the post-overnight time data and identifying the top 10 users displaying intensive interactions with fellow authors in the comment section, it becomes evident that Social Network Analysis (SNA) proves effective in analyzing social networks. The empirical evidence derived from the examination of data highlights the proficiency of SNA in uncovering patterns and relationships within social networks. Using SNA allows for systematically exploring the dynamic interactions among users, providing valuable insights into the structure and connectivity of the analyzed social network. The effectiveness of SNA in elucidating social dynamics, mainly when applied to datasets reflecting user interactions over time. In conclusion, the results derived from employing SNA on the post-overnight data affirm its effectiveness as a robust analytical tool for comprehensively analyzing social networks and unraveling the nuances of user interactions within online platforms.

Furthermore, conducting a video network analysis of the Waseda Boy’s Trip to Manado and Likupang is necessary to examine the relationships among actors within the chain network. Extending the analysis to examine interactions and connections among actors involved in the video content is essential. A video network analysis can provide a more comprehensive understanding of the relational dynamics, shedding light on how different actors contribute to the video’s overall structure and engagement patterns. The significance of exploring the relationships among actors is that it enriches the understanding of collaborative efforts and the impact of individual contributions in shaping the overall network dynamics. In conclusion, integrating a video network analysis will enhance the depth of insights into the intricate relationships and interactions among actors, thereby contributing to a more holistic comprehension of the Manado & Likupang travel vlog’s network structure, as shown in the figure below.
Figure 8. Chain Network “Who Replies to Whom” from Waseda Boys Trip to Manado & Likupang Content

Figure 8 shows the chain network “Who Replies to Whom” from Waseda Boys Video Trip to Manado & Likupang. Analyzing the Chain Network reveals several key network metrics, including a diameter of 3, a density of 0.001208, reciprocity at 0.000000, centralization of 0.002762, and a modularity of 0.997000. The informative value derived from these metrics offers insights into the patterns of replies and interactions within the comment chain network. The calculated diameter of 3 indicates the maximum distance between any two nodes in the network, while the density indicates the network's compactness. The significance of these metrics in capturing the nuances of reply chains and the nature of reciprocal engagements among viewers within the context of the Manado & Likupang content. In conclusion, the comprehensive set of metrics, including centralization and modularity, contributes to a deeper understanding of the interactive dynamics within the comment network of the Manado and Likupang travel vlog.

Network In-degree Centrality: Top 10 Users

Network Out-degree Centrality: Top 10 Users

Posts over Time

Figure 9. Netlytic Report of SNA from the Waseda Boys’ Trip to Manado & Likupang Content
Figure 9 shows the Netlytic Report of SNA regarding the video of the Waseda Boys' Trip to Manado and Likupang. Based on the Netlytic report regarding Social Network Analysis (SNA), it is evident that trends or popular keywords can be comprehensively analyzed to glean insights into factors influencing travel intentions. The informative value derived from Netlytic's analysis emphasizes its ability to examine popular trends and keywords within the dataset comprehensively. The analysis allows for identifying prevalent themes and topics that resonate with users, offering valuable indications of factors that stimulate travel intentions. The relevance of leveraging SNA, as facilitated by Netlytic, to discern patterns in user-generated content, providing a nuanced understanding of the factors influencing travel intentions. In conclusion, the insights from the Netlytic report contribute to a more holistic comprehension of user preferences and interests, offering valuable clues for understanding the factors that shape travel intentions.

The findings of this research bolster the argument regarding tourism and travel vlog content as a marketing marketing strategy. The research strengthens the existing discourse on the strategic role of travel vlog content in the tourism marketing communication field [40]. The empirical evidence and insights derived from the study provide substantial support to the notion that well-crafted vlog content plays a pivotal role in influencing and shaping the perceptions of potential tourists. The effectiveness of utilizing engaging and authentic travel vlog content as a communicative strategy to attract and captivate audiences [41]. In conclusion, the findings of this research not only contribute to the body of knowledge but lend credence to the significance of employing tourism and travel vlog content as an impactful strategy in the realm of tourism marketing communication.

Furthermore, the role of influencers in boosting travel intention and intensity emerges as a crucial aspect of tourism marketing. In addition, the influence of influencers in shaping travel intentions and intensifying the desire to explore various destinations [42]. Empirical evidence demonstrates the substantial impact that influencers wield in influencing the decision-making process of potential travelers [43]. The pivotal role of influencers emphasizes their ability to showcase travel experiences and effectively connect with diverse audiences authentically [44]. In conclusion, recognizing the influential role of content creators in boosting travel intention and intensity reinforces the importance of strategic collaborations and partnerships with influencers as integral components of contemporary tourism marketing strategies.

Storynomic as Interesting Content of Tourism Destination in Indonesia encapsulates a noteworthy dimension in tourism promotion and content creation. Storynomic has a compelling role as a captivating and influential content strategy in showcasing the unique facets of tourism destinations within the Indonesian field [45]. Storynomic, emphasizing narrative-driven content, provides a distinct and engaging approach to portraying Indonesian destinations' cultural, historical, and natural attractions [46]. The potency of Storynomic in resonating with diverse audiences, fostering a deeper connection with the portrayed destinations. In conclusion, recognizing Storynomic as an exciting content strategy for tourism destinations in Indonesia emphasizes the importance of narrative storytelling in effectively promoting and highlighting the rich tapestry of experiences the country offers.

4. CONCLUSION

The results of this study demonstrate the relevance of the CRISP-DM approach in conjunction with Social Network Analysis (SNA), particularly in analyzing network patterns among actors in the comment section of tourism and travel vlog content. There are three main findings: tourism and travel vlog content as tourism marketing communication strategy; the role of influencers in boosting travel intention and intensity; and storynomic as interesting content of tourism destinations in Indonesia. The empirical evidence substantiates the interconnectedness of these three aspects and their impact on audience engagement and travel-related decision-making. The comprehensive nature of the CRISP-DM and SNA integration provides a robust analytical framework for understanding the multifaceted dynamics of tourism content and audience interactions. In conclusion, for future research, it is recommended to elaborate on the findings by incorporating sentiment analysis to identify content preferences among viewers, further enhancing the depth of insights into audience responses and preferences in the realm of tourism and travel vlogs.

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