

Optimizing Data Interoperability: An Approach Towards Unified Employment Data in Indonesia

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Abstract. This research focuses on efforts to optimize data interoperability towards unified employment data in Indonesia, which consists of planning, manufacturing, integration, and marketing strategies using the Twitter social media account @kemnakerRI, which has the potential to provide valuable guidance for policy development, planning, and implementation of promotional strategies in future. Data analysis using NVivo 12 Plus comes from various media, news, and Twitter data support Revealing activity on social media accounts includes four main aspects. Planning (Planning) provided the most significant contribution, namely 24%, which reflects the awareness and maturity of the Ministry of Manpower's strategy. Planning includes determining topics, scheduling placements, and using specific techniques to increase engagement. Content Creation accounts for 20%, indicating active efforts in producing informative material through graphics, infographics, videos, or text posts. Integration is 21% complete, meaning efforts to integrate information into broader initiatives and campaigns. Marketing activity (Marketing) of 19% shows that the @kemnaker social media account is an effective channel for marketing and promoting information related to One Employment Data, considering its benefits and success, as well as facing the challenges of differences in data standards, integration, and regulatory differences. The novelty of the research is that it combines social media data analysis to support the optimization of one employment data strategy. **Keywords:** System and Technology Interoperability, One Employment Data, Social Media, Indonesia

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1 Introduction

An in-depth study of promotional strategies that can improve the performance of the One Employment Data system in Indonesia has been carried out because of the importance of interoperability in managing employment data [1]. In this case, this research analyzes promotional strategies used on Twitter, emphasizing planning, creating, integrating, and marketing communication strategies [2]. It says that communication strategies involve many stages, from planning to marketing. Planning is a vital step to creating the right strategy, while creation requires innovation to create exciting and relevant content [3]. The next step is implementing communication strategies on various platforms, including social media, to achieve optimal connectivity with the audience [4].

In the context of One Employment Data, promotional strategies using social media such as Twitter are expected to help disseminate information, increase public awareness, and increase community involvement with employment data [5]. This case study aims to find and analyze promotional strategies for One Employment Data in Indonesia. By thoroughly understanding the communication strategies used in this research, it is hoped to provide helpful information for related parties on improving the interoperability of One Employment Data.

The effectiveness of the promotion strategy can increase in forming public opinion and disseminating information quickly [6]. Promotional methods can increase community involvement in One Employment Data by understanding responses, participation, and interactions [7]. Criteria such as suitability for purpose, visual quality, and content appeal will be identified to determine how practical each approach is [8].

One Employment Data for effective exchange of information between agencies, as well as improving coordination and decision making, even when facing problems [9]. Data integration problems are caused by overlaps, which cause data fragmentation so that through interoperability coordination, we can produce accurate data as a basis for policy [10]. Other obstacles include lack of regulation, data integration difficulties, low human resource capacity, and lack of digital infrastructure readiness [11].

The government is strengthening regulations, increasing collaboration between agencies, and accelerating development through digital infrastructure [12]. A comprehensive approach combining qualitative analysis with a thorough examination of social media strategy. NCapture NVivo 12 Plus with Chrome Web was used to analyze Twitter Timeline data. The first step is to import data from a Twitter account. The second stage includes the classification and coding of data according to research indicators. Social media can support a single data policy by adopting consistent internal practices, establishing uniform privacy standards, increasing user awareness, and collaborating with third parties to develop better industry standards [2].

The importance of this research is not only limited to the technical aspects of communication; this also helps improve the One Employment Data system. By understanding successful promotional strategies, this research has the potential to provide valuable guidance for future policy development, planning, and implementation. From the research results, strategic recommendations will emerge that can be adopted by related parties to optimize data interoperability towards unified employment data in Indonesia and support single employment data interoperability in Indonesia.

2 Research Methods

This research focuses on efforts to optimize data interoperability towards unified employment data in Indonesia by utilizing social media in conveying the communication process, which consists of planning, creating, integrating, and marketing strategies using the Twitter social media account @kemnakerRI, which has the potential to provide helpful guidance. Valuable for policy development, planning, and implementation of promotional

strategies [2]. This process is carried out through the Twitter social media account @kemnakerRI, which can provide helpful guidance for policy development, planning, and implementation of future promotional strategies. Data integration is hampered by data overlap, a lack of regulation, and a poorly prepared digital infrastructure [13].

It is hoped that the results of this research can produce strategic recommendations that take a comprehensive approach, combining qualitative analysis with a thorough examination of social media strategy. This study used four analyses to examine the data, one of which is the Monthly Schedule Analysis, which runs from January to October 2023. NVivo 12 Plus Analysis helps organize, analyze, and explore data to identify patterns and themes systematically. Others can use it. This research uses qualitative methods to analyze the NVivo 12 plus program (as shown in Figure 1).

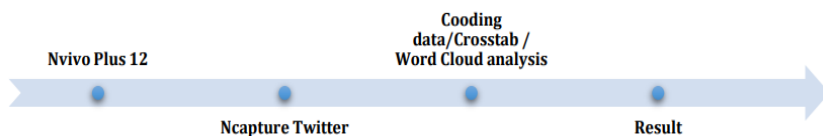


Fig. 1. Research Framework

3 Result And Discussion

In the scope of Implementing One Employment Data, the Ministry of Manpower of the Republic of Indonesia is developing One Employment Data optimally. Strategy towards Unified Employment Data in Indonesia to encourage One Employment Data to improve understanding and utilization of employment data [9]. The Ministry of Manpower of the Republic of Indonesia has implemented integrated marketing communications in several stages, starting from planning, creation, integration, and marketing strategy [2]. Information submitted to advance Single Employment Data observed from January to October 2023 is shown in Figure 2.

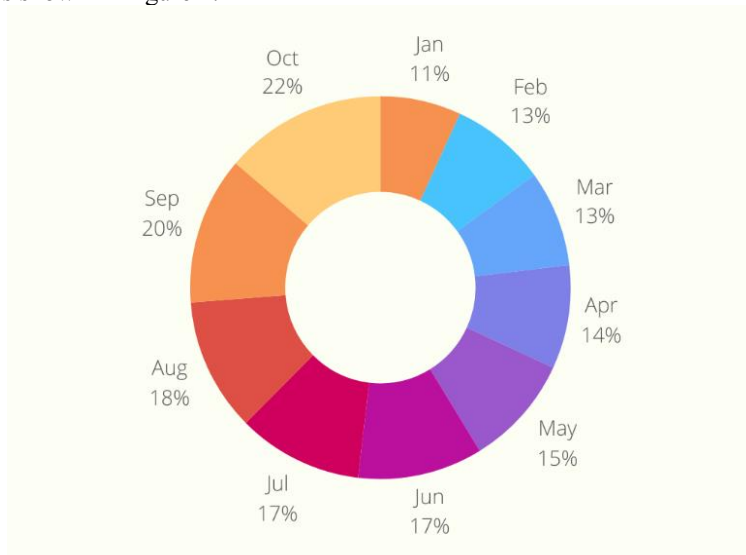


Fig. 2. Ministry of Manpower of the Republic of Indonesia social media account activities in 2023

The participation rate of the Ministry of Manpower of the Republic of Indonesia in social media activities in 2023. Regarding social media activities, an increase in the labor participation rate of 11% at the beginning of the year, especially in January, is a potential

indicator for increased online awareness and interaction. The Ministry's early efforts to increase reach and engagement on social media evidence of this. The efforts paid off by seeing increase each month from February to October. The percentage increase of 22% in October indicate that more people are interacting with, supporting, or aware of employment issues. Activities on social media include: Posting more frequently, Participating in online campaigns, Sharing educational information about work, Interacting directly with audiences through comments and private messages.

The Ministry of Manpower of the Republic of Indonesia uses social media to create policies, listen to public feedback, and increase understanding of its programs. Figure 3 shows the dissemination of information through social media accounts with posts of activities carried out consistently and periodically. Effective dissemination of promotional information depends on strategy. Our content numbers differ significantly, as shown in Figure 3, when we look at the overall process within the One Data Workforce framework, which includes planning, creation, integration, and marketing [2], [14]. This integrated information delivery process aims to provide customers with knowledge and responses tailored to their needs. This process is also intended to develop information gradually in stages. We are optimizing data interoperability towards unified employment data, which consists of planning, creation, integration, and marketing strategies, as shown in Figure 3.

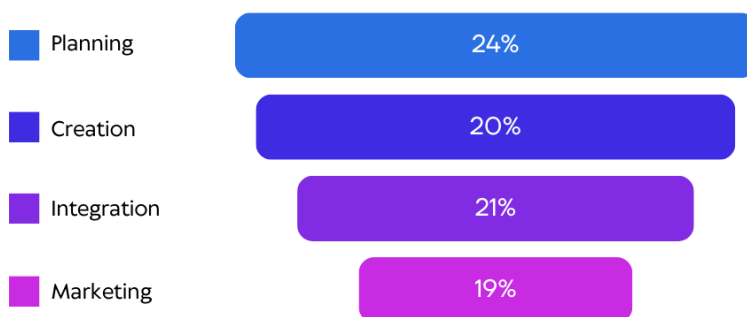


Fig. 3. Crosstab Query Interoperability Optimization strategy stages

As shown in Figure 3, social media, especially the official @kemnaker account, effectively spread the word about One Employment Data. The analysis results using NVivo 12 Plus show the most significant contribution from planning (24%), including topic selection, posting schedule, and engagement strategy. Content creation (20%) focuses on creating informative and exciting content. Integration (21%) indicates efforts to combine information into other initiatives, while marketing (19%) is used to promote information with a focus on the benefits and importance of the initiative. The Ministry of Manpower utilizes social media to increase community involvement through a holistic approach.

3.1 Planning Data Interoperability

Planning should include determining short-term and long-term goals for implementing One Employment Data [15]. These goals include increasing community engagement, raising awareness, and understanding employment conditions [1], [16]. Planning must involve the private sector, local government, academia, and the general public [13]. Stakeholder involvement can improve program sustainability and increase its acceptability [17]. The importance of using a practical communication approach. This includes the delivery of messages that are easy to understand, using social media, and information campaigns [11].

The target audience must be reached, and communications planning must be designed to gain a deep understanding of One Employment Data [18], [19]. Social media helps implement One Employment Data by giving data organizers, producers, and trustees a platform to communicate, share information, and work together to produce high-quality data [12]. To achieve the goal of One Employment Data, the openness and connectivity of social media facilitates the OED consolidation process, enabling OED administrators at the central and regional levels to work together better [20]. Operator of one employment data is figure 4.

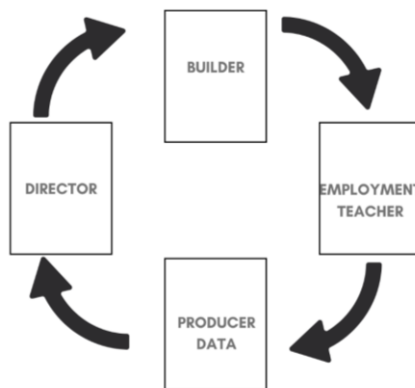


Fig.4. Operator of one employment data

Data Planning, Data Collection, Data Processing, Data Analysis, Data Presentation, Data Dissemination, Data Service, and Data Storage are all part of one data management job. The minister who handles employment issues in the government is said to be the data supervisor in implementing One Employment Data [21]. However, data producers comprise work units in central and regional agencies that produce worker data [22]. Data guardians at the regional level handle statistics, information, and communication, while work units manage data guardians at the central level in the Ministry [23].

Each data provider is responsible for their responsibilities, working together to produce high-quality data [7]. Employment data producers at the central and regional levels are responsible for contacting the relevant Employment Data Guardian [24]. Social media encourages collaboration, openness, and interaction between data organizers, producers, and trustees. With SDK consolidation, it is hoped that it can help SDK organizing entities at the central and regional levels work together to realize One Employment Data [25].

3.2 Creation Data Interoperability Optimization

In implementing One Employment Data, content creation (Creation) can include principles and strategies for creating informative, exciting, and relevant content [26]. One Employment Data Content Creation emphasizes the importance of diversifying content types. This includes using graphics, infographics, video, and text to present information holistically [1]. Themes such as employment, employment, world of work, job loss, job information, open jobs, culture, and democracy are closely related to the application of employment data. The content created is in Figure 5.



Fig.5. Gallery One Employment Data

Content creation enables the Ministry of Manpower and institutions dealing with employment issues to understand data standards, metadata, and employment data reference codes [21]. The analysis shows that it can make it easier for job seekers to find job vacancies and help overcome the problem of job loss. Additionally, it plays a vital role in creating a fair work culture by giving everyone access to job opportunities. Therefore, social media is critical to helping the application of employment data because it facilitates the communication of necessary information between individuals, organizations, and related institutions. Through organizing employment institutions at the central and regional levels, the Ministry of Manpower is trying to perfect the implementation of the one employment data policy.

3.3 Data Interoperability Integration

Combining One Employment Data with workforce needs in the private sector and industry enables better engagement and collaboration to ensure that initiatives are relevant and enduring [27]. Employment policy Highlights the need to cooperate and coordinate with local governments to meet local conditions and needs [10]. Technology can improve data integration. Including the latest digital platforms and data management systems, this theory emphasizes using information and communications technology to integrate and display data effectively. Clarity of Employment Data Flow is in Figure 6.

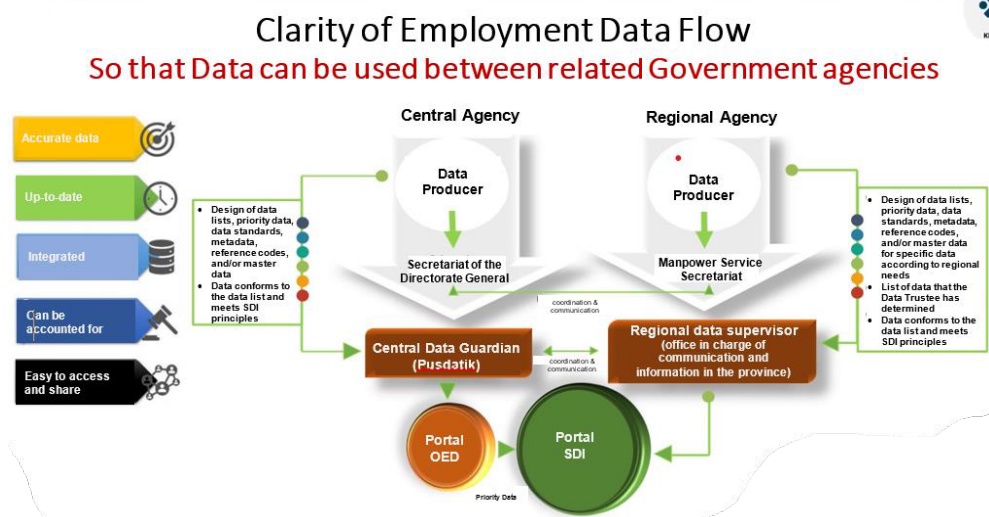


Fig. 6. Employment Data Flow

Processing single employment data involves reporting, verifying, and validating data periodically and in stages, starting from the Regency/City, Provincial, and Central levels, to prevent duplicate data [28]. This is done conventionally and using information technology [29]. The Ministry of Manpower manages the single employment data policy [20]. Clarifying data flows, improving coordination between agencies, and effective data management with coordination, consolidation, and duplicate prevention techniques are the main focus of efforts [24].

Data reporting, verification, and validation are carried out routinely and in stages using conventional methods and information technology [10]. Social media is vital in increasing the efficiency and effectiveness of implementing employment data [30]. Building an open and responsive communication network allows efforts to clarify data flow, improve coordination between agencies, and more efficient data management [31]. Quality data and information support every employment decision and policy, relevant, accurate, up-to-date, complete and sustainable, and based on facts/evidence (evidence-based) [32].

3.4 Marketing Data Interoperability

In implementing One Employment Data, marketing is a way to promote, market, and increase public awareness of the initiative [7]. Shows how important it is to build brand awareness in the context of One Employment Data [22]. Marketing should create positive perceptions and increase public understanding of the program's goals and benefits [4], [21]. Employment Data shows how important social media is for reaching target audiences [33]. Social media such as Twitter, Facebook, and Instagram can expand your reach and enable direct interaction with people [5], [34]. Implementing One Employment Data can achieve more effective marketing goals through brand building, appropriate targeting, utilization of social media, effective communication, use of success stories, collaboration with influencers, and careful evaluation [6]. Activities in supporting data interoperability are shown in Figure 7.

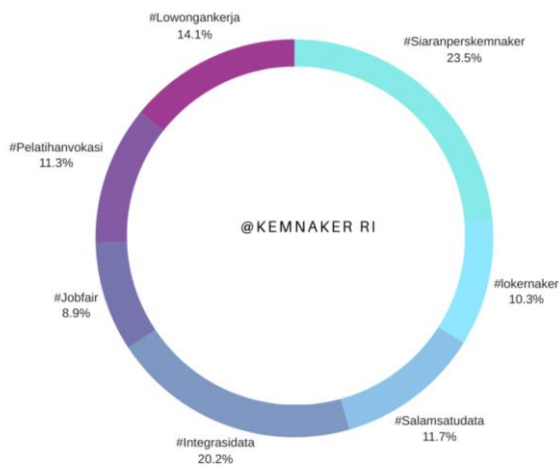


Fig.7. (NVivo 12 Plus analysis by Hastag (2023))

The results of analysis using NVivo 12 Plus show that the official Twitter account @Kemnaker RI consistently uses specific hashtags such as #Siaranperskemnaker, #lokernaker, #Salamsatudata, #Integrasidata, #Jobfair, #Vocational Training, and #Job Vacancies. Using this hashtag, data interoperability can be improved so that information about jobs, training, and labor market conditions can be absorbed more effectively. This can help with better analysis and decision-making about work [35]. The analysis results show that the hashtag performs well, is responsive, and complies with standard data formats or protocols in organizational interoperability processes. Hashtags help combine data more systematically and make social media's support for employment data interoperability even more evident. Social media, thus, not only serves as a tool for communication but also helps people exchange information about work more efficiently with the hashtags used.

4 Conclusion

Optimizing the Application of One Employment Data, which is considered the primary source of information in the field of employment. Optimizing Data Interoperability Towards Unified Employment Data in Indonesia, including integrated marketing and social media, is used to promote One Employment Data, focusing on increasing understanding and utilization of employment data. Activity on the Ministry's social media accounts showed increased workforce participation, indicating increased awareness and online interaction regarding employment issues. Using social media through @Kemnaker effectively conveys information with an emphasis on planning, content creation, integration, and marketing. Social media also supports data interoperability with hashtags, thereby creating better coordination in the exchange of information. Data integration with education and training programs is essential, while marketing emphasizes building awareness regarding One Employment Data. Prevention of data duplication, coordination between data custodians and producers, and utilization of information technology to support data reporting, verification, and validation. Implementing One Employment Data aims to increase transparency, coordination, and effectiveness in the employment sector, and social media plays a vital role in supporting this implementation. This research combines social media data analysis with strategic planning, content creation, information integration, and marketing activities to support government policies and strategies in

Indonesia. The weaknesses of this research can be overcome by expanding the sample, using more sophisticated data analysis methods, and combining qualitative and quantitative approaches to provide a more complete picture of the effectiveness of social media strategies. Future research could explore the technical aspects of data interoperability and the potential integration of advanced data analysis techniques to optimize the employment data ecosystem in Indonesia.

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