

User Satisfaction and Utilization Patterns of Indonesia's National Food Data Portal: Evidence from the First Quarter 2026 Survey

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Abstract

The National Food Data Portal is an important digital platform supporting agricultural information, research, and evidence-based policymaking in Indonesia. This study analyzed user satisfaction and utilization patterns using the First Quarter 2026 User Satisfaction Survey published by the National Food Agency. A descriptive quantitative approach based on secondary data analysis was employed. In addition to descriptive statistics, several analytical indicators were calculated, including the Satisfaction Index (SI), Positive Satisfaction Rate (PSR), Knowledge Utilization Index (KUI), Academic–Government Utilization Ratio (AGUR), and Information Service Orientation Index (ISOI). The results showed that the portal achieved a Satisfaction Index of 91.75% and a Positive Satisfaction Rate of 98.3%. Research (46.8%) and policy preparation (37.1%) represented the dominant utilization purposes, resulting in a Knowledge Utilization Index of 87.9%. Academic users accounted for 46.0% of total users, followed by government institutions (41.9%). The Information Service Orientation Index reached 7.26, indicating that the portal is primarily utilized for research and evidence-based policymaking. These findings demonstrate that the National Food Data Portal has become an important digital infrastructure supporting agricultural research and food governance in Indonesia.

Keywords: Food Data Portal, User Satisfaction, Agricultural Information System, Open Government Data, Food Policy

1. Introduction

Digital information systems have become an essential component of modern agricultural governance by improving access to reliable, timely, and structured information. In the agricultural sector, data availability is important for supporting production planning, market monitoring, food distribution, and policy evaluation [4], [6]. The use of digital platforms allows agricultural information to be accessed more widely by government institutions, researchers, businesses, and the public [12], [14]. Open government data also support transparency because users can obtain information from official sources [13], [15], [16]. Therefore, digital agricultural information systems have an important role in strengthening data-based decision-making [10], [12].

Open government data are increasingly important in supporting research and evidence-

based policymaking, particularly in the food and agricultural sectors [12], [15]. Food-related data are needed to evaluate availability, consumption, prices, distribution, and food security conditions [3], [9], [10]. When these data are accessible through digital platforms, researchers and policymakers can use them to identify trends, monitor risks, and design appropriate interventions [13], [14]. In Indonesia, the National Food Agency has developed the National Food Data Portal to provide integrated food information for various users [1], [2]. This portal is expected to support better coordination, transparency, and public access to food data while strengthening national food governance [2], [8].

Evaluating user satisfaction is important for assessing the effectiveness of digital public services. High user satisfaction indicates that users perceive the information system as useful, accessible, reliable, and relevant to their needs [18], [19]. In the context of food data services, satisfaction may reflect user perceptions of data quality, ease of access, accuracy, and service responsiveness [18]. A portal that receives positive user evaluation is more likely to be used continuously by researchers, government institutions, and other stakeholders [19]. Therefore, user satisfaction analysis provides useful feedback for improving digital food information services and strengthening digital public service quality [13], [18].

In addition to satisfaction, utilization patterns are also important to understand the actual role of the portal. Different users may access the portal for different purposes, including research, policy preparation, news production, business analysis, and public information [1], [2]. Identifying dominant user groups and utilization purposes helps determine whether the portal functions mainly as a research platform, a policy-support tool, or a general information service [12], [14]. Such analysis is useful for improving service design, enhancing data accessibility, and prioritizing future digital information development [15], [17]. Therefore, user satisfaction and utilization patterns should be analyzed together to obtain a more complete understanding of portal performance [18], [20].

This study aims to evaluate user satisfaction and utilization patterns of Indonesia's National Food Data Portal based on the First Quarter 2026 User Satisfaction Survey published by the National Food Agency [1]. The study uses a descriptive quantitative approach based on official survey data to assess portal performance and user behavior [1], [2]. In addition to descriptive statistics, this study develops several derived indicators to strengthen the analytical value of the survey results. These indicators include the Satisfaction Index, Positive Satisfaction Rate, Knowledge Utilization Index, Academic–Government Utilization Ratio, and Information Service Orientation Index. The findings are expected to provide evidence-based insights for improving digital agricultural information services, strengthening open government data utilization, and supporting evidence-based food policy in Indonesia [8], [12], [14].

2. Materials and Methods

This study employed a structured methodological framework to evaluate user satisfaction and utilization patterns of Indonesia's National Food Data Portal based on official survey data. The analysis was conducted using a descriptive quantitative approach that combined descriptive statistics with several derived analytical indicators to provide a more comprehensive evaluation of portal performance [1], [18]. The methodology focuses on four main components, namely the research design, data source, variables, and data analysis techniques. In addition to describing user satisfaction and utilization characteristics, the study developed several quantitative indicators to strengthen the interpretation of the survey results [18], [19]. These methodological procedures provide a systematic basis for assessing the effectiveness of the National Food Data Portal as a digital agricultural information service and its role in supporting research, evidence-based



polymaking, and food information management [12], [14], [15].

2.1 Research Design

This study employed a descriptive quantitative approach using secondary data obtained from the First Quarter 2026 User Satisfaction Survey of the National Food Data Portal [1]. The descriptive quantitative approach was selected because the study aimed to describe user satisfaction levels and utilization patterns based on numerical survey results [18]. This approach allows the research to present percentages, index values, and comparative indicators in a systematic manner. The study did not involve experimental treatment or direct intervention with users. Therefore, the research design is appropriate for evaluating the performance of a digital public information service using available official data [18], [20].

The study relied on secondary data because the survey results had already been collected and published by the National Food Agency [1], [2]. Secondary data analysis is suitable when official data are available and can be used to answer the research objectives [4], [12]. This method enables the researcher to analyze existing information without conducting a new survey. It also reduces the need for additional fieldwork while maintaining relevance to real user experiences. Therefore, the study focuses on interpreting official survey results and converting them into meaningful analytical indicators [18].

The descriptive design was used to explain the general condition of user satisfaction with the National Food Data Portal. The satisfaction score and satisfaction categories were analyzed to determine how users evaluated the portal service [18], [19]. In addition, the distribution of user sectors was examined to identify the main groups accessing the portal. The purposes of portal utilization were also analyzed to understand whether the portal was mainly used for research, policy preparation, news, or other activities. These analyses provide a clear overview of the portal's role in supporting agricultural information services [2], [14].

Although the study is descriptive, it also develops several derived indicators to strengthen the analytical value of the survey results. These indicators include the Satisfaction Index, Positive Satisfaction Rate, Knowledge Utilization Index, Academic–Government Utilization Ratio, and Information Service Orientation Index. The indicators were calculated from the percentages and scores reported in the survey infographic [1]. This approach allows the study to move beyond simple description and provide additional interpretation of portal performance. As a result, the analysis becomes more relevant for evaluating digital agriculture services and evidence-based food policy [12], [14].

Overall, the research design provides a practical framework for assessing the effectiveness of the National Food Data Portal. By combining descriptive statistics and derived indicators, the study can evaluate both satisfaction and utilization dimensions [18]. This design is useful for identifying whether the portal functions primarily as a public information platform, research support tool, or policy-support system. The findings are expected to provide evidence for improving the quality, accessibility, and usefulness of digital food data services [13], [15]. Therefore, the descriptive quantitative design is consistent with the objective of evaluating user satisfaction and utilization patterns of Indonesia's National Food Data Portal.

2.2 Data Source

The data used in this study were obtained from the First Quarter 2026 User Satisfaction Survey of Indonesia's National Food Data Portal [1]. The survey was published by the National Food Agency as part of its evaluation of digital food information services [2]. It provides official information on user satisfaction, user characteristics, and the purposes of portal utilization. These official statistics constitute the primary data analyzed in this study. Therefore, the data source is



considered relevant for assessing the performance of the National Food Data Portal.

The survey summarizes user satisfaction scores and satisfaction categories. The average satisfaction score was used to evaluate the overall level of user satisfaction with the portal. Satisfaction categories, such as very satisfied and satisfied, were used to identify the distribution of user perceptions [18], [19]. These indicators provide useful information about how users evaluate the quality and usefulness of the portal. Therefore, the satisfaction data serve as the basis for calculating the Satisfaction Index and Positive Satisfaction Rate.

In addition to satisfaction indicators, the survey also presents information on user sectors. The user sector data include academic users, government institutions, industry, media, nonprofit organizations, and other users [1]. These data are important because they show which stakeholder groups most frequently utilize the portal. Understanding the composition of users helps identify whether the portal functions mainly as a research-support platform, policy-support tool, or general public information service [12], [14]. Therefore, user sector data were used to calculate the Academic–Government Utilization Ratio.

The survey also reports the purposes of portal utilization. These purposes include research, policy preparation, news production, and other uses. Such information is important for understanding the practical role of the portal in supporting food information services [2], [15]. In this study, utilization data were used to calculate the Knowledge Utilization Index and Information Service Orientation Index. These indicators help explain whether the National Food Data Portal is primarily used for knowledge production, evidence-based policymaking, or other information needs [12], [20].

2.3 Variables

The analyzed variables included satisfaction score, satisfaction category, user sector, and utilization purpose. These variables were selected because they represent the main dimensions needed to evaluate the National Food Data Portal [1], [18]. The satisfaction score reflects the overall perception of users toward the portal service. The satisfaction category provides more detailed information on the distribution of user responses. Together, these variables support an assessment of digital service quality from the user perspective [18], [19].

The satisfaction score was used as the primary indicator of overall user satisfaction. This score represents the average rating given by users in the First Quarter 2026 survey [1]. In this study, the satisfaction score was converted into a Satisfaction Index to make the result easier to interpret. The index expresses the satisfaction score as a percentage of the maximum possible score. Therefore, this variable helps evaluate whether the portal achieved a high level of user satisfaction [18].

The satisfaction category was used to examine the proportion of users who reported positive perceptions of the portal. The categories included very satisfied, satisfied, and other lower satisfaction levels. In this study, the very satisfied and satisfied categories were combined to calculate the Positive Satisfaction Rate [18], [19]. This variable is important because it shows the share of users who gave favorable evaluations of the portal. A high Positive Satisfaction Rate indicates that most users perceived the portal positively.

User sector was analyzed to identify the main stakeholder groups accessing the National Food Data Portal. The user sectors included academics, government institutions, industry, media, nonprofit organizations, and other users [1]. This variable provides information about the institutional profile of portal users. It also helps determine whether the portal is more strongly used by research institutions, government agencies, or other stakeholder groups [12], [14]. Therefore, user sector data were used to interpret the strategic role of the portal in supporting agricultural information services.

Utilization purpose was analyzed to understand how users used the information provided by



the portal. The reported purposes included research, policy preparation, news production, and other uses [1]. This variable is important because it shows whether the portal mainly supports knowledge production, policymaking, public communication, or general information needs. In this study, utilization purpose was used to calculate the Knowledge Utilization Index and the Information Service Orientation Index [12], [20]. These indicators strengthen the analysis by showing the extent to which the portal supports research and evidence-based food policy.

2.4 Data Analysis

The data were analyzed using descriptive statistics and derived indicator analysis. Descriptive statistics were used to summarize the satisfaction score, satisfaction categories, user sectors, and purposes of portal utilization [18]. Percentages reported in the survey were presented in tables to show the distribution of user responses. This approach provides a clear overview of user satisfaction and utilization patterns. Therefore, descriptive analysis served as the first step in evaluating the performance of the National Food Data Portal.

To strengthen the analytical value of the study, five derived indicators were calculated from the available survey data. These indicators included the Satisfaction Index (SI), Positive Satisfaction Rate (PSR), Knowledge Utilization Index (KUI), Academic–Government Utilization Ratio (AGUR), and Information Service Orientation Index (ISOI). Each indicator was designed to provide additional interpretation beyond simple descriptive percentages [18], [19]. The indicators help explain the quality of user satisfaction, the dominance of positive responses, the knowledge orientation of portal use, and the structure of portal users. Therefore, the analysis becomes more meaningful for evaluating digital agricultural information services [12], [14].

The Satisfaction Index was calculated by converting the average satisfaction score into a percentage of the maximum possible score. The Positive Satisfaction Rate was calculated by adding the percentage of users who reported being very satisfied and satisfied. The Knowledge Utilization Index was calculated by combining utilization purposes related to research, policy preparation, and news production. The Academic–Government Utilization Ratio was calculated by comparing the proportion of academic users with government users. The Information Service Orientation Index was calculated by comparing knowledge-oriented uses with other uses.

The results of these calculations were then interpreted in relation to digital public service performance, agricultural information systems, and evidence-based food policy [12], [14], [20]. Higher values of SI and PSR indicate stronger user satisfaction with the portal [18], [19]. Higher KUI and ISOI values indicate that the portal is more strongly oriented toward research, policy, and knowledge-based activities. Meanwhile, AGUR provides insight into whether the portal is more intensively used by academic or government users. Overall, the combination of descriptive statistics and derived indicators provides a more complete evaluation of Indonesia's National Food Data Portal.

3. Results

This section presents the results of the descriptive statistical analysis of user satisfaction and utilization patterns of Indonesia's National Food Data Portal based on the First Quarter 2026 User Satisfaction Survey published by the National Food Agency [1], [2]. The analysis focuses on four main aspects of portal performance, namely user satisfaction, utilization patterns, user characteristics, and derived analytical indicators. These dimensions provide complementary information for evaluating the effectiveness of the portal as a digital agricultural information service and an evidence-based food policy support system [12], [14]. In addition to presenting the official survey statistics, this study develops several analytical indicators to provide a more comprehensive interpretation of portal utilization and user perceptions [18], [19]. The results are expected to provide empirical evidence



regarding the strategic role of the National Food Data Portal in supporting agricultural research, public information services, and digital food governance in Indonesia [13], [15], [20].

The presentation of the results is organized into four subsections. The first subsection examines the level of user satisfaction based on the average satisfaction score, Satisfaction Index, and Positive Satisfaction Rate. The second subsection discusses portal utilization patterns by identifying the dominant purposes of data usage and calculating the Knowledge Utilization Index. The third subsection analyzes the characteristics of portal users based on institutional sectors and presents the Academic–Government Utilization Ratio. Finally, the fourth subsection summarizes the derived analytical indicators to provide a broader assessment of the portal's performance as a national digital food information platform supporting research, policymaking, and evidence-based agricultural governance [12], [18], [20].

3.1 User Satisfaction

The average user satisfaction score for Indonesia's National Food Data Portal reached 3.67 on a four-point scale [1]. This score indicates that users generally perceived the portal positively. When converted into a Satisfaction Index, the score corresponds to 91.75% [1]. This result shows that the portal achieved a very high level of user satisfaction. Therefore, the National Food Data Portal can be considered an effective digital public information service based on user perception [18], [19].

The satisfaction distribution also shows a strong positive response from users. A total of 68.5% of respondents reported being very satisfied with the portal [1]. Meanwhile, 29.8% of respondents stated that they were satisfied [1]. When these two categories are combined, the Positive Satisfaction Rate reaches 98.3%. This indicates that almost all respondents provided favorable evaluations of the portal.

The high satisfaction level suggests that the portal is perceived as useful, accessible, and relevant to user needs [18], [19]. Users may benefit from the availability of integrated food data that can support research, policy preparation, and public information [2], [12]. The dominance of very satisfied responses also indicates that the portal has succeeded in meeting user expectations during the First Quarter of 2026 [1]. This condition is important because user satisfaction can influence continued portal utilization [18]. A high level of satisfaction may encourage users to rely on the portal as an official source of food data [13], [15].

Overall, the satisfaction results demonstrate that the National Food Data Portal has strong acceptance among its users. The Satisfaction Index of 91.75% and Positive Satisfaction Rate of 98.3% provide evidence that the portal performs well as a digital food information service [1]. These findings also indicate that the portal has potential to strengthen open data utilization in the agricultural and food sectors [12], [15]. However, maintaining user satisfaction requires continuous improvement in data quality, accessibility, system reliability, and service responsiveness [18], [19]. Therefore, regular evaluation is necessary to ensure that the portal remains relevant and useful for various stakeholder groups [13], [20].

3.2 Utilization Patterns

The analysis of portal utilization shows that research was the primary purpose for accessing Indonesia's National Food Data Portal. A total of 46.8% of respondents reported using the portal to support research activities [1]. This proportion was higher than any other utilization category reported in the survey. The finding indicates that the portal has become an important source of official food data for academic and scientific activities [2], [12]. Therefore, research represents the dominant function of the National Food Data Portal.

Policy preparation ranked as the second most common utilization purpose, accounting for 37.1% of total responses [1]. This finding indicates that government institutions and policymakers



actively use the portal to support evidence-based decision-making [12], [14]. Access to reliable food information enables policymakers to monitor food availability, evaluate existing programs, and formulate appropriate interventions [3], [9]. The relatively high proportion of policy-related utilization demonstrates that the portal contributes not only to academic activities but also to public administration [13], [16]. Consequently, the National Food Data Portal serves an important role in supporting food governance in Indonesia [2], [8].

A smaller proportion of users accessed the portal for news production and other purposes. News-related utilization accounted for 4.0% of respondents, while other purposes represented 12.1% [1]. Although these proportions were considerably lower than research and policy preparation, they indicate that the portal also provides information for public communication and various institutional needs. The diversity of utilization purposes demonstrates that the portal serves multiple stakeholder groups rather than a single user community [13], [20]. This broad utilization enhances the value of the portal as a national digital food information platform [14], [15].

To provide additional interpretation beyond descriptive percentages, this study calculated the Knowledge Utilization Index (KUI). The index combines utilization related to research, policy preparation, and news production because these activities represent knowledge generation, dissemination, and evidence-based decision-making [12], [15]. The calculated KUI reached 87.9%, indicating that nearly nine out of ten portal users accessed the system for knowledge-oriented purposes [1]. This high percentage confirms that the National Food Data Portal functions primarily as a knowledge infrastructure rather than merely an information repository [14], [16]. Therefore, the portal plays an important role in supporting scientific research, public policy, and information dissemination [12], [20].

Overall, the utilization pattern demonstrates that the National Food Data Portal has successfully positioned itself as a strategic digital platform for knowledge-based activities. The dominance of research and policy utilization indicates that users rely on the portal to obtain official and credible food data [1], [2]. At the same time, the presence of media and other users shows that the portal also supports wider public access to food information. These findings suggest that the portal contributes to strengthening transparency, open government data, and evidence-based agricultural governance [13], [15], [20]. Continuous improvement in data quality, accessibility, and service integration will further enhance the portal's usefulness for a broader range of stakeholders [17], [18].

3.3 User Characteristics

The analysis of user characteristics shows that academic users constituted the largest group accessing Indonesia's National Food Data Portal. Academic users accounted for 46.0% of total respondents in the First Quarter 2026 survey [1]. This indicates that the portal is widely used by universities, researchers, students, and academic institutions. The dominance of academic users suggests that the portal provides valuable data for scientific research and educational activities [12], [15]. Therefore, the National Food Data Portal can be considered an important data source for agricultural and food-related research [2], [10].

Government institutions represented the second-largest user group, accounting for 41.9% of total respondents [1]. This proportion indicates that the portal is also strongly utilized by public institutions and policymakers. Government users may access the portal to support policy formulation, program planning, monitoring, and evaluation of food-related policies [8], [14]. The high share of government users confirms the portal's role as a policy-support information system [13], [16]. Consequently, the National Food Data Portal contributes to strengthening evidence-based governance in the food and agricultural sectors [12], [20].



Industry, media, nonprofit organizations, and other users represented relatively small proportions compared with academic and government users. Industry users accounted for 3.2%, media users represented 2.4%, nonprofit organizations accounted for 0.8%, and other users represented 5.6% [1]. Although these groups were smaller, their presence shows that the portal serves a diverse range of stakeholders. The use of the portal by industry may support business analysis, while media users may utilize it for news reporting and public communication [13], [20]. This diversity indicates that the portal has broader relevance beyond academic and government institutions [14], [15].

The Academic–Government Utilization Ratio reached 1.10, indicating slightly higher utilization among academic users compared with government users [1]. This means that for every one government user, there were approximately 1.10 academic users accessing the portal. The ratio confirms that academic and government users are the two dominant groups using the portal. This balance is important because it shows that the portal supports both knowledge production and public policy processes [12], [14]. Therefore, the National Food Data Portal functions as a bridge between research activities and government decision-making [15], [20].

Overall, the user characteristics demonstrate that the National Food Data Portal has a strong knowledge-oriented user base. The combined proportion of academic and government users reached 87.9%, showing that most users came from institutions involved in research, analysis, and policymaking [1]. This finding supports the interpretation that the portal is not merely a public information platform but also a strategic knowledge infrastructure [12], [15]. However, the relatively low participation of industry, media, and nonprofit users suggests that wider outreach may still be needed. Expanding user engagement across more stakeholder groups could strengthen the portal's role in supporting inclusive digital food information services [13], [17].

3.4 Analytical Indicators

To strengthen the interpretation of the descriptive survey results, this study developed five derived analytical indicators based on the official user satisfaction data [1]. These indicators were designed to provide additional insights into the quality of user satisfaction, the orientation of portal utilization, and the characteristics of portal users [18], [19]. Unlike simple descriptive percentages, the derived indicators summarize multiple survey variables into more informative measures. This approach allows a more comprehensive evaluation of the National Food Data Portal as a digital agricultural information service [12], [14]. The calculated indicators are presented in Table 1.

Table 1. Derived analytical indicators of the National Food Data Portal

Indicator	Value
Satisfaction Index	91.75%
Positive Satisfaction Rate	98.30%
Knowledge Utilization Index	87.90%
Academic–Government Utilization Ratio	1.10
Information Service Orientation Index	7.26

The Satisfaction Index reached 91.75%, indicating that the overall quality of the National Food Data Portal was evaluated very positively by its users [1]. This value was obtained by converting the average satisfaction score into a percentage of the maximum possible score. The high index demonstrates that users generally considered the portal useful, accessible, and capable of meeting their information needs [18], [19]. This finding is consistent with the large proportion of respondents reporting favorable satisfaction categories. Overall, the Satisfaction Index reflects excellent user acceptance of the portal as a digital public information service [13], [16].



The Positive Satisfaction Rate reached 98.30%, meaning that almost all respondents reported either being very satisfied or satisfied with the portal [1]. Such a high percentage indicates that negative user perceptions were very limited during the survey period. This result suggests that the portal has successfully delivered services that meet the expectations of most users [18], [19]. High positive satisfaction also increases the likelihood of continued portal utilization and repeated access to official food data. Therefore, maintaining service quality should remain an important priority for future portal development [13], [18].

The Knowledge Utilization Index was calculated at 87.90%, indicating that the majority of portal utilization was associated with research, policy preparation, and news dissemination [1]. This finding demonstrates that the portal functions primarily as a knowledge-support platform rather than merely as a repository of public information [12], [15]. The dominance of knowledge-oriented activities confirms the strategic role of the portal in supporting scientific research and evidence-based policymaking [14], [20]. It also indicates that the information provided by the portal has substantial practical value for decision-making processes [8], [13]. Consequently, the National Food Data Portal contributes to strengthening knowledge generation and information dissemination within Indonesia's food sector.

The Academic–Government Utilization Ratio reached 1.10, indicating that academic users accessed the portal slightly more frequently than government institutions [1]. This ratio suggests a relatively balanced distribution between the two largest user groups while showing a modest dominance of academic utilization. The finding reflects the importance of the portal for universities, researchers, and students as a source of official food statistics [12], [15]. At the same time, the high proportion of government users confirms the portal's strategic role in supporting public administration and policy formulation [13], [14]. Together, these two user groups represent the primary beneficiaries of the National Food Data Portal.

The Information Service Orientation Index reached 7.26, indicating that the portal was utilized more than seven times more frequently for research- and policy-related purposes than for other activities [1]. This result clearly demonstrates that the portal is strongly oriented toward supporting knowledge production and evidence-based decision-making [12], [14]. Rather than functioning solely as a public information website, the portal has developed into a strategic digital infrastructure for agricultural research and food governance [15], [16]. The high value of this indicator also reflects the relevance of official food data for both scientific and governmental applications [8], [20]. Overall, the derived analytical indicators provide stronger empirical evidence that the National Food Data Portal plays a significant role in Indonesia's digital agricultural information ecosystem and supports the implementation of evidence-based food policies.

4. Discussion

The findings indicate that the National Food Data Portal has become an important digital infrastructure supporting agricultural research and evidence-based policymaking in Indonesia [12], [14], [15]. The high Satisfaction Index demonstrates that users positively evaluate the accessibility, usefulness, and relevance of the portal [1], [18], [19]. This result suggests that the portal has succeeded in meeting user expectations as an official food information service. The strong positive satisfaction level also indicates that users trust the portal as a reliable source of food data [13], [18]. Therefore, the portal can be viewed as an important component of Indonesia's digital agricultural information system [2], [14], [16].

The dominance of research utilization confirms that the portal plays a strategic role in supporting scientific activities. Academic users were the largest user group, indicating that researchers, lecturers, and students rely on the portal for food-related data [1]. This finding shows



that official digital data services can contribute to strengthening agricultural research and knowledge production [10], [12], [15]. The availability of accessible food data helps researchers conduct empirical studies related to food availability, prices, consumption, and policy issues [3], [9], [10]. As a result, the portal supports the development of data-driven research in the agricultural and food sectors [12], [14].

Policy preparation was also one of the dominant purposes of portal utilization. This indicates that the portal is not only used for academic purposes but also supports government decision-making [8], [12]. Reliable and timely food data are essential for planning, monitoring, and evaluating food security policies [3], [9]. The high proportion of policy-related utilization shows that the portal contributes to evidence-based policymaking in Indonesia [13], [14], [20]. Therefore, improving the quality and completeness of portal data can directly strengthen food governance and public policy formulation [2], [15], [16].

The analytical indicators further show that the portal is strongly oriented toward knowledge-based utilization. The Knowledge Utilization Index of 87.9% and Information Service Orientation Index of 7.26 demonstrate that the portal is used mainly for research, policy, and information dissemination [1]. These results indicate that the portal functions beyond a simple data repository [12], [15]. It has become a knowledge infrastructure that connects data providers with users who need evidence for research and decision-making [14], [16]. This role is important in supporting transparency, accountability, and digital transformation in the food sector [13], [15], [20].

Despite these positive findings, further improvement is still needed to strengthen the portal's contribution to Indonesia's digital agricultural transformation. Data interoperability should be improved so that portal data can be connected with other agricultural, statistical, and regional information systems [12], [14], [17]. Metadata quality also needs to be strengthened to help users understand data definitions, sources, periods, and limitations [15], [17]. In addition, open access services, downloadable datasets, and application programming interface features would increase the usability of the portal for advanced analysis [13], [15]. These improvements would enable the National Food Data Portal to provide stronger support for agricultural research, evidence-based policymaking, and national food security management [8], [9], [20].

5. Conclusion

This study evaluated user satisfaction and utilization patterns of Indonesia's National Food Data Portal using the First Quarter 2026 User Satisfaction Survey published by the National Food Agency [1], [2]. The analysis employed a descriptive quantitative approach complemented by several derived analytical indicators to strengthen the interpretation of the survey results [18], [19]. The findings demonstrate that the portal has been widely accepted by its users and serves multiple strategic functions within Indonesia's food information system. The analytical framework developed in this study also provides a broader perspective than conventional descriptive survey reporting. Overall, the study confirms that the National Food Data Portal has become an important component of Indonesia's digital agricultural information infrastructure [12], [14].

The survey results indicate that the National Food Data Portal achieved a high level of user satisfaction. The Satisfaction Index reached 91.75%, while the Positive Satisfaction Rate reached 98.30%, indicating that almost all respondents expressed favorable perceptions of the portal [1]. These findings suggest that users consider the portal accessible, useful, and capable of meeting their information needs [18], [19]. High user satisfaction also reflects the quality of the portal as an official digital public service [13], [16]. Maintaining this level of satisfaction will require continuous improvements in service quality and user experience [18], [20].

The analysis of utilization patterns demonstrates that the portal is primarily used for



knowledge-oriented activities. Research represented the largest utilization purpose, followed by policy preparation, producing a Knowledge Utilization Index of 87.90% [1]. In addition, academic institutions and government agencies constituted the two largest user groups, as reflected by the Academic–Government Utilization Ratio of 1.10 [1]. These findings indicate that the portal functions not only as a public information platform but also as an important source of evidence for scientific research and government decision-making [12], [14], [15]. Consequently, the National Food Data Portal contributes significantly to strengthening evidence-based agricultural governance in Indonesia [8], [13], [20].

The derived analytical indicators further demonstrate that the portal has a strong orientation toward supporting research and policymaking. The Information Service Orientation Index of 7.26 indicates that research- and policy-related activities dominate portal utilization compared with other purposes [1]. This result highlights the strategic role of official food data in supporting knowledge generation, policy formulation, and public information dissemination [12], [15], [16]. The analytical indicators proposed in this study also provide additional tools for evaluating digital public information services beyond conventional satisfaction measures [18], [19]. Therefore, they may serve as useful references for future evaluations of agricultural information systems and other government digital platforms [13], [17].

Future development of the National Food Data Portal should prioritize improving data accessibility, interoperability, metadata quality, and advanced analytical services [12], [14], [17]. Expanding open data features and strengthening integration with other agricultural information systems would further increase the usefulness of the portal for researchers, policymakers, and the public [13], [15]. Continuous monitoring of user satisfaction and utilization patterns is also necessary to evaluate service performance and identify emerging user needs [18], [19]. Such improvements will strengthen the portal's contribution to digital agriculture, evidence-based policymaking, and transparent food governance [8], [12], [20]. Ultimately, enhancing the National Food Data Portal will support Indonesia's long-term food security strategy and accelerate the digital transformation of the agricultural sector [9], [12], [14].

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