

Improving Worker Welfare Through Digital Innovation in Bpjs Ketenagakerjaan: Implementation Study and its Impact

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ABSTRACT

This research focuses on the implementation of digital innovation at BPJS Ketenagakerjaan as a strategic step to enhance workers' welfare in Indonesia. BPJS Ketenagakerjaan plays a crucial role in providing comprehensive social security through programs such as Old Age Security (JHT), Work Accident Security (JKK), Pension Security (JP), Job Loss Security (JKP), and Death Security (JKM). To improve service efficiency, transparency, and accessibility, BPJS Ketenagakerjaan introduced the Jamsostek Mobile (JMO) application, which allows participants to access information, file claims, and manage their memberships online. The study reveals that digital innovation via JMO significantly impacts the ease of access to services and time efficiency for users. However, the implementation of digitalization also faces several challenges, including low digital literacy, limited technological infrastructure in remote areas, technical issues within the application features, and regulatory barriers that do not fully support digital transformation. Using a descriptive qualitative approach based on literature review, this research highlights the importance of enhancing digital education, strengthening technological infrastructure, and developing more inclusive application features. In conclusion, digital innovation at BPJS Ketenagakerjaan not only improves public service quality but also contributes to enhancing workers' welfare amidst evolving economic and social dynamics.

INTRODUCTION

Indonesia is known as a country with very rapid development in various sectors. The initial milestone of this development began with the laying of a strong foundation by the former 2nd President of Indonesia, Mr. Soeharto. He, known as the Father of Indonesian Development, has a strategic role in formulating important policies that are the basis for long-term development in the country. Under his leadership, Indonesia has successfully overcome major challenges, including economic and social crises, by directing its focus on strengthening the economic sector, infrastructure development, and creating national stability. Policies such as Pelita (Five-Year Development) are the main instruments in encouraging industrialization, modernizing the agricultural sector, and expanding access to education and health. This not only brings significant changes to Indonesia's economic structure but also strengthens the country's competitiveness in the region. This strategic policy footprint remains an important reference in continuing the national development agenda to date.

In the economic development of a country, workers are among its main pillars. Workforce has a very important role in supporting development in Indonesia, starting from the period after the proclamation of independence to the present. Based on Article 1 paragraph 2 of Law Number 13 of 2003 concerning Manpower, labor is defined as an individual who has the ability to carry out work with the aim of producing goods and/or services, both to meet personal needs and the needs of society. In Indonesia, the growth of the ever-increasing workforce is a complex challenge that requires serious attention from various parties. With a growing productive age population, governments, businesses, and communities face the responsibility to create adequate jobs, provide decent protection, and improve overall workforce welfare. This challenge is not only limited to the quantity aspect of employment, but also includes the quality of available work. Many workers are still in the informal sector, with limited access to social security, legal protections, and other worker rights.

The Constitution of Indonesia, namely the Constitution of the Republic of Indonesia in 1945, strictly regulates social security for workers. This is reflected in Article 28H paragraph (3), which states: "Everyone has the right to social security that allows for the full development of themselves as a dignified human being."

In addition, Article 34 paragraph (2) also emphasizes that:

"The state develops a social security system for all people and empowers the weak and indigent in accordance with human dignity."

This regulation affirms the country's commitment to providing social protection, including for workers, through various policies and programs designed to ensure their well-being. This social security system is not only a form of state protection of human rights, but also a tool to realize social justice in society.

In facing increasingly complex employment challenges, synergy between various parties is very important, including the government's strategic role in protecting workers' rights. One of the concrete steps taken by the government is through the implementation of BPJS Ketenagakerjaan, a public legal entity tasked with providing social security to workers. Quoted from the BPJS Employment website, the implementation of the social security program is one of the responsibilities and obligations of the state in providing social and economic protection for the community. The program is designed to ensure that every citizen receives adequate support, especially in the face of social and economic risks. The implementation is adjusted to the state's financial capabilities, so that it can run sustainably and effectively in meeting the needs of the community.

In addition, the establishment of a social security program in a country is also a form of implementation of the concept of a welfare state (Syachrezi et al., 2015). The concept of the welfare state is based on the idea that the state has a responsibility to ensure the welfare of its citizens. This is done through various efforts, such as providing services, assistance, protection, and preventing the emergence of social problems. As explained by Hadiyono (2020), this approach reflects the state's commitment to creating a prosperous and just society, by paying special attention to the needs and rights of each individual.

BPJS Employment functions as the front line in ensuring that workers get comprehensive protection, both from aspects of job security, health, to long-term welfare such as pension benefits. To achieve this goal, BPJS Ketenagakerjaan runs five main programs designed to protect workers from various risks that may be faced during their working life.

The phenomenon of public services by the government bureaucracy, including BPJS, is still colored by various problems that hinder the achievement of optimal services. Some of them are the indisciplined attitude of bureaucratic officials, the determination of unreasonable tariffs in order to speed up the service process, and the lack of accountability and transparency in its implementation (Samudera & Pertiwi, 2022). These problems often arise as a result of the mindset of the bureaucratic apparatus which tends to position itself as a party to be served, not as a servant of the community. This kind of mindset not only reduces the quality of service, but also damages public trust in government institutions. Therefore, innovation in public services is a must for government, both at the central and regional levels, to improve the quality of services to the community. One of the strategic steps that has been implemented is the use of e-government, which is the use of information technology in the government process. E-government plays a significant role in helping the Indonesian government improve the efficiency, transparency, and accessibility of public services. Through the application of this technology, the community can more easily access services, while the government can optimize resource and time management in providing more responsive and accountable services (Samudera & Pertiwi, 2022).

The use of digital technology, including e-government, has had a significant impact on the management of the social security sector in Indonesia. Digitalization allows for the creation of efficiency in various administrative processes, increases transparency, and expands public access to social security services. It also provides a better experience for service users, especially in terms of speed, practicality, and convenience. BPJS Ketenagakerjaan as an employment social security provider has adopted various digital innovations to support service transformation, such as mobile applications, online systems for registration and payment of contributions, as well as the use of big data for risk analysis and worker needs.

(Setiawan et al., 2023) conducted a study that aimed to analyze the satisfaction of BPJS Employment participants in the Banuspa Regional Office work area towards the use of the JMO (Jamsostek Mobile) application, explore user perceptions of the application services, and develop strategies to optimize its use. The results showed that participants were satisfied with the JMO application, especially in terms of reliability, responsiveness, privacy, information quality, and ease of use. However, there are still technical obstacles such as biometrics that make it difficult to update data.

Another research conducted by (Ash Shiddiqi et al., 2023) aims to understand the implementation of the Jamsostek Mobile (JMO) application in increasing BPJS Employment participation at the West Pasaman KCP. To optimize the use of these apps, strategies such as socialization, education, and improving app features and security are recommended. This study shows that the JMO application provides easy access to BPJS Employment services, including registration and benefit claims, although there are still technical obstacles due to the new application status.

(Daaris & Imam, 2024) also conducted research on the JMO application which aims to identify challenges and obstacles in the digital transformation of public services in Bima Regency, with a focus on licensing services. The results of the study show that despite progress in digitalization, challenges in the form of low digital literacy and inadequate infrastructure are still obstacles.

The implementation of JMO information technology and management participation significantly affected the effectiveness of accounting information systems, with a combined contribution of 78.3%. The discussion underlined the importance of information technology development and management support in improving the operational efficiency of old-age insurance claims (Khikmawati & Mursyidah, 2022).

Therefore, this article will discuss "Improving Worker Welfare through Digital Innovation at BPJS Ketenagakerjaan". The formulation of the problem studied in this study is:

How is the implementation of digital innovation in BPJS Ketenagakerjaan?

What are the challenges and obstacles faced in the implementation of digital innovation at BPJS Ketenagakerjaan?

What is the impact of digital innovation on the welfare of workers in Indonesia?

Based on the formulation of the problem above, the purpose of this study is:

Analyze the implementation of digital innovation in BPJS Ketenagakerjaan.

Measure the impact of digital innovation on worker well-being.

Identifying challenges in the implementation of digital innovation in BPJS Employment.

METHOD

This study uses a library research method with a qualitative descriptive approach designed to describe and analyze phenomena in depth based on secondary data (Kiyarsi & Wira Bhrata, 2021). The qualitative descriptive approach is a research method that aims to describe, understand, and explain phenomena in depth based on the data obtained, and is often used in various fields such as social sciences, education, health, and cultural studies due to its flexibility in exploring complex and dynamic topics (Waruwu, 2024). This approach emphasizes contextual understanding, with a focus on uncovering the meaning of specific real-life experiences, behaviors, or situations, as well as utilizing different types of data such as interviews, observations, documents, artifacts, and secondary data such as scientific articles and books.

The analysis is carried out in a non-numerical manner by identifying patterns, themes, or relationships in the data to provide a holistic picture (Waruwu, 2024). This research begins with problem identification, followed by data collection through interviews, observations, document studies, or literature review, then analyzed thematically or narratively to reveal deep meanings, and the results are presented descriptively with the support of relevant original data. This approach has advantages in providing in-depth understanding, allowing exploration of complex problems, and presenting the perspective of the research subject authentically, but it also has weaknesses such as being susceptible to subjectivity, unable to produce data that can be generalized statistically, and taking a long time for the data collection and analysis process. In practice, this approach is widely used to analyze the impact of public policy, delve into individual experiences related to specific phenomena, and research cultural values or social practices, making it an effective method for comprehensively understanding phenomena and providing relevant insights for decision-making or theory development in various fields, although its success depends heavily on the researcher's sensitivity to data and ability to manage subjectivity.

This research aims to explore the urgency of value education in response to the challenges of globalization, as well as understand the strategic role of digital innovation in improving worker welfare through more efficient,

transparent, and integrated services at BPJS Ketenagakerjaan. This research data was obtained from various reliable and relevant sources, such as reference books, scientific articles published in national and international journals, as well as expert views in the field of value education and digital innovation.

The data collection in this study is carried out by conducting an in-depth literature review, aiming to find theories, concepts, and results of previous research that are closely related to the topic being researched (Waruwu, 2024). In this process, the data obtained is carefully selected based on several criteria, such as the credibility of the source used, the relevance of the material to the focus of the research, and the suitability of the data to the established research objectives. This filtering process ensures that only valid and appropriate information is used in analyzing the phenomenon under study. Meanwhile, the data analysis in this study is carried out thematically, starting with categorization, which is grouping information based on main themes such as the form of digital innovation, its impact on workers' welfare, and challenges and opportunities in its implementation (Kiyarsi & Wira Bhrata, 2021). After that, interpretations are carried out to understand the relationship between these themes, which aims to provide a deeper understanding of the phenomenon being studied. Finally, the results of the research findings are presented in the form of a narrative description that explains the findings comprehensively, so that readers can clearly understand the context and meaning of this research.

RESULTS

BPJS Ketenagakerjaan, which since the end of 2019 has been known as BPJAMSOSTEK, is a Public Legal Entity that is directly responsible to the President of the Republic of Indonesia. This institution plays a role in providing protection to workers against certain socio-economic risks that can arise due to employment relationships. As an employer of employment social security, BPJS Employment is the main implementer of the law that regulates the social protection system for workers, as well as supporting the creation of social justice and welfare in Indonesia.

Previously, this institution was known as Jamsostek (Labor Social Security) which was managed by PT Jamsostek (Persero). However, with the enactment of Law Number 24 of 2011 concerning BPJS, PT Jamsostek officially transformed into BPJS Employment on January 1, 2014. This change is part of the government's efforts to strengthen the social security system in Indonesia with a more comprehensive and integrated approach.

BPJS Employment provides services to two types of participants. The first participant is a worker who receives wages and the second participant is a worker who is not a wage earner. A wage worker is any individual who does work and earns income, either in the form of salary, wages, or other compensation from the employer, such as office employees or factory workers. Meanwhile, non-wage earners are individuals who carry out business activities independently with the aim of earning income, such as doctors, traders, online

motorcycle taxi drivers, and so on. The types of guarantees provided by BPJS are as follows

Old Age Security

JHT or Old Age Insurance is a protection program designed to ensure that participants receive cash benefits when they reach retirement, experience permanent total disability, or pass away. The benefits provided are in the form of cash calculated from the accumulation of all contributions that have been paid plus the results of the development.

Work Accident Insurance

Work Accident Insurance (JKK) is a protection program that provides benefits for workers who experience the risk of accidents that occur in the work relationship, including accidents on the way to or from work, as well as diseases arising from the work environment. The benefits received by participants are health services (treatment and treatment) according to medical needs, compensation in the form of money and the Return to Work Program.

Death Guarantee

Death Insurance (JKM) is a protection program that provides cash benefits given to heirs when the participant dies not due to a work accident or work-related disease. . This program aims to help ease the burden on families left behind through the provision of compensation, funeral expenses, and other benefits in accordance with applicable provisions.

Pension Security

JP or Pension Guarantee is a protection program that is organized to maintain a decent standard of living when participants lose or reduce their income due to entering retirement age or experiencing a permanent total disability. This program provides benefits in the form of cash that is paid every month and/or at once if the participant enters retirement age, is permanently completely disabled or dies.

Job Loss Guarantee

Job Loss Guarantee (JKP) is a guarantee given to workers/laborers who experience termination of employment with the aim of maintaining a decent standard of living at the time the worker loses his job. Workers can meet the basic needs of a decent life when there is a risk due to termination of employment while trying to get back to work. The benefits of this program are given to participants who have been laid off and have not worked, and have a commitment to return to the job market. Benefits are obtained if the participant meets the JKP program contribution period of at least 12 months in 24 months and has paid contributions for at least 6 consecutive months.

DISCUSSION

Implementation of Digital Innovation at BPJS Employment

Quality public services require innovative updates, including the development of services in various government agencies. The update aims to create a system that is more efficient, transparent, accountable, and responsive to the needs of the community, as well as ensuring that all services can be easily accessed by all levels of society (Sarah Dinda Hanifa & Nida Handayani, 2024). These innovative measures will encourage the creation of a better government, where the services provided are not only fast and precise, but can also increase public trust in the relevant agencies. BPJS Ketenagakerjaan, as an institution that has a great responsibility in protecting workers through social security programs, is also committed to keeping up with the times by continuing to innovate. In this case, BPJS Ketenagakerjaan plays an active role in supporting digital transformation to improve the quality of its services. One of the real efforts made is to introduce the Jamsostek Mobile (JMO) application, a digital-based service designed to facilitate access for participants to manage their rights and obligations in the labor insurance system (Sarah Dinda Hanifa & Nida Handayani, 2024).

The JMO application was launched in September 2021 as part of BPJS Ketenagakerjaan's efforts to ensure that all workers in Indonesia can enjoy comprehensive and integrated protection in a modern and reliable insurance system. This application can be downloaded for free through the Apple Store or Play Store, so it can be accessed by almost all smartphone users in Indonesia, both formal and informal workers. The launch of this application not only aims to provide convenience in terms of access to information and services, but also to support the achievement of community welfare, especially in terms of employment social security that more accessible, efficient, and guaranteed in quality.

As a manifestation of BPJS Ketenagakerjaan's commitment to always provide the best service, the JMO application is designed with various advanced features that allow participants to more easily manage their personal data, update information, and access the services they need. Some of the excellent features contained in this application include JHT (Old Age Guarantee) claim submission, real-time claim status tracking, JHT and JP (Pension Insurance) balance simulation, and ease of making complaints or reporting related to the services received (Sarah Dinda Hanifa & Nida Handayani, 2024). With these features, participants can make various transactions that previously required a direct visit to the BPJS Employment office, now they can be done with just a few taps on the smartphone screen. This is certainly very advantageous for workers who have high mobility and limited time to take care of insurance administration.

The JMO application is also a continuation of the previous application, BPJSTKU, which was first released in 2016. Although BPJSTKU already has many useful features, the JMO application comes with a more modern look and is equipped with various additional features that are more suitable for the needs of users in this digital era. One of them is the improvement of the security system and the ease of submission claims that can now be done faster and more efficiently (Sarah Dinda Hanifa & Nida Handayani, 2024). In addition, this application allows participants to get the latest information about new policies or programs issued by BPJS Ketenagakerjaan, so that participants can continue to follow the latest developments related to their rights.

With the launch of the JMO application, BPJS Ketenagakerjaan not only seeks to make it easier for participants to access the services they need, but also supports the achievement of transparency and accountability in the management of employment social security. The app gives participants the ability to monitor all their activities, from fee payments to claim status, openly and clearly. Thus, BPJS Ketenagakerjaan can continue to improve the quality of public services through digital technology, which in turn will support the achievement of the main goal of providing protection and welfare for all workers in Indonesia. Innovations such as JMO are clear evidence that digitalization in public services, if implemented properly, can bring significant positive changes in facilitating access, increasing efficiency, and accelerating services received by the community.

The main advantage of the JMO application lies in its ability to provide more efficient and practical services, without participants having to visit BPJS Ketenagakerjaan branch offices directly. This is certainly very advantageous for participants who have limited time or who live far from the branch office, because they can access various services using just their smartphones, anytime and anywhere. Thus, the JMO app not only saves time, but also transportation costs that may previously be required to visit branch offices, especially for workers in areas with limited transportation access. This convenience certainly provides more comfort for participants, because they can focus on their work without being distracted by complicated administrative processes. The JMO application is equipped with various informative features that greatly help participants to better understand the benefits they receive from the employment social security program. Through this application, participants can easily access the latest information about various programs provided by BPJS Ketenagakerjaan, such as Old Age Insurance (JHT), Pension Insurance (JP), Work Accident Insurance (JKK), and Death Insurance (JKM). This information is presented in a clear and easy-to-understand manner, so that participants can know exactly what their rights are and how to use them. Since its first launch, the JMO app has managed to record more than 10 million downloads, an achievement that reflects the high level of enthusiasm and trust that people have in the service. With a series of features that are comprehensively designed to answer various labor needs, JMO is not only a practical tool but also an important

innovation that strengthens BPJS Ketenagakerjaan's commitment to providing better public services.

This application is a symbol of transformation towards modern, accessible, and inclusive services, so that it is able to reach all levels of society more effectively and efficiently (Sarah Dinda Hanifa & Nida Handayani, 2024)



Figure 1. JMO User Data (September 2021-July 2022)

Based on the image above, it is clear that there is a significant positive trend in the use of the JMO application. The data presented shows that since its launch in 2021, this application has managed to attract the attention of the public with the number of initial users as many as 50,374 people. Over time, this application continues to record tremendous growth, reflecting the public's trust and appreciation for the innovative digital services offered by BPJS Ketenagakerjaan. This growth not only illustrates the success of applications in meeting user needs, but also confirms the importance of digital transformation in improving the accessibility and efficiency of public services.

The growth in the number of JMO application users continues to show a significant increase, until it finally reached its peak in July 2022 with a total of 75,301 users. This surge is not only clear evidence of the increasing public trust in the JMO application, but also reflects the success of BPJS Employment in providing services that are relevant, easily accessible, and in accordance with the needs of modern society. This achievement shows that BPJS Ketenagakerjaan's strategic steps in developing digital innovation are able to answer the challenges of the times while meeting public expectations for more effective and efficient public services.

In addition, these figures are a reflection of the success of the digitalization program that is being carried out, strengthening BPJS Ketenagakerjaan's position as a pioneer in technology-based service transformation. This positive trend also provides morale encouragement as well as an important indicator to continue to improve the quality and scope of services through the development of new features in the JMO application. This success not only reflects the positive impact of the innovations that have been made, but also opens up opportunities to expand the benefits of this digital service to more people, so that BPJS Ketenagakerjaan's vision of providing inclusive, modern, and efficient public services can be realized in the future.

Challenges and Obstacles to Digital Innovation of BPJS Employment

The digital innovation initiated by BPJS Ketenagakerjaan through the launch of the Jamsostek Mobile (JMO) application is a strategic step to improve the quality of services for participants. By offering easy access, service speed, and modern features, this application is expected to meet the needs of people who are increasingly dependent on digital technology (Sarah Dinda Hanifa & Nida Handayani, 2024). However, the implementation of this innovation is inseparable from various challenges involving user aspects, technological infrastructure, data security, and supporting regulations. These challenges must be overcome to ensure that the JMO application provides optimal benefits to the community.

One of the main obstacles is the low level of digital literacy among BPJS Employment participants, especially those who live in remote areas or areas with limited access to technology. Many participants have difficulty understanding how the JMO application works and benefits, so they have not been able to take advantage of all available features. The lack of education about the use of digital technology and online services is the main reason why participants feel less confident or even reluctant to try this application.

This digital literacy problem not only reduces public access to faster and more efficient services, but also hinders the potential of the JMO application in providing maximum impact. Therefore, BPJS Ketenagakerjaan needs to initiate a systematic and inclusive education program. Digital literacy campaigns, training, and direct mentoring in the community are important steps to increase public understanding, so that they can use this application optimally. With this effort, the JMO application is expected to become a symbol of modern and inclusive public service transformation, ensuring that all participants have the same opportunity to experience the benefits.

However, the challenges in using the JMO application do not only come from the aspect of digital literacy, but also from technical problems. One real example is the obstacles that users face when updating personal data, especially at the biometric verification stage. The process of taking face pictures often suffers from technical failures, and if the user fails in three attempts, the system automatically blocks their account. As a result, users have to go to a BPJS Ketenagakerjaan branch office to restore account access, which of course takes time and effort.

In addition, the login process to the JMO application is also a complaint that is often expressed. Many users face long wait times, often followed by system failures or applications that suddenly come out on their own, even though they have been updated to the latest version (Sarah Dinda Hanifa & Nida Handayani, 2024). These constraints not only hinder users from completing administrative tasks, but also reflect the need for significant improvements in supporting infrastructure and technology.

Therefore, BPJS Ketenagakerjaan must be committed to overcoming these technical problems by improving the quality of the system, strengthening technological infrastructure, and ensuring data security. With a thorough overhaul, the JMO application can be a reliable and effective digital solution in meeting the needs of participants. This step will also strengthen the image of BPJS Ketenagakerjaan as an institution that is adaptive and responsive to the demands of the digital era, as well as answering the needs of the community with innovative and inclusive services.

The limited amount of balance that can be claimed through the Jamsostek Mobile (JMO) application, which currently only reaches around IDR 10 million, is one of the big challenges in BPJS Ketenagakerjaan's digital innovation efforts. This limitation reflects the lack of the app's ability to comprehensively meet the needs of participants, especially those with larger savings balances. Participants who want to make claims above this nominal amount are forced to use other services outside of the JMO application, a condition that goes against the initial goal of digital transformation to create more efficient and practical services.

This limitation also shows that the features of the JMO application are currently not optimally designed to accommodate the various types of services available at BPJS Ketenagakerjaan. As a result, participants are not only dissatisfied with the limitations of the application's functionality, but also experience obstacles that slow down the widespread adoption of digital services. In this context, more comprehensive and integrated application development is urgently needed to ensure that all participants' needs can be met through one reliable digital platform.

Furthermore, the limitations of this balance claim highlight the importance of socialization and digital literacy aspects. Participants who do not understand the mechanism of claims with large nominal amounts through other services tend to feel confused or disappointed, so that it can reduce the level of trust in BPJS Ketenagakerjaan's digital innovation. Therefore, BPJS Ketenagakerjaan needs to overcome this problem by expanding the capacity of the JMO application, including introducing a feature that allows claims with larger balances.

Integrating all services into the JMO application will not only improve ease of access, but also strengthen the image of BPJS Ketenagakerjaan as an innovative and participant-oriented institution. This step will remove the barriers that have existed so far, while providing a better user experience. Thus, JMO can be an inclusive and effective digital solution in supporting various needs of participants, as well as increasing public trust in technology-based public services. In addition, users often complain that not all features on the Social Security Mobile (JMO) application can function optimally. Some features sometimes experience glitches, such as notifications that the app is in the process of upscaling. This condition causes certain features to be temporarily unusable, which ultimately reduces the user's comfort and confidence in utilizing digital services.

One of the obstacles that is quite prominent is related to the data update feature (Sarah Dinda Hanifa & Nida Handayani, 2024). For example, when users are asked to fill in their date of birth, the application system requires them to scroll through the year of birth manually. This process becomes very inefficient, especially for participants with a birth year far in the past. To overcome this obstacle, the system can be enhanced by adding a direct input option, so that users can enter their date of birth more quickly and conveniently.

These kinds of problems show that although the JMO application has brought many benefits and made it easier to access BPJS Employment services, there is still room for further development. Improvements to certain features are essential to ensure that the app can provide an optimal user experience.

By making continuous improvements, such as increasing application capacity, improving the interface, and adding more intuitive input options, JMO can better meet the needs of participants. This step will also strengthen BPJS Ketenagakerjaan's position as a digital-based public service provider that is reliable, efficient, and responsive to user needs.

In addition, the inequality of access to technology infrastructure in various regions in Indonesia is one of the major obstacles in the implementation of BPJS Employment digital services. Not all areas, especially in remote areas, have stable and adequate internet access. This makes it difficult for participants who are in areas with limited connectivity to take advantage of the digital services provided, such as the JMO application. This uneven dependence on technological infrastructure results in inequality in receiving benefits from digital innovation, so that participants in areas with low connectivity have not been able to experience the convenience and efficiency offered by the system.

This condition also creates a deeper digital divide between urban areas and remote areas. Although technological advances are already very pronounced in big cities, regions with limited infrastructure still face great challenges to access digital-based public services. Therefore, it is important for BPJS Ketenagakerjaan to consider alternative solutions for participants in areas with low connectivity, such as improving local technology infrastructure or providing offline-based services that still allow access to services.

To overcome this problem, there needs to be a more inclusive effort in the development of technology and the distribution of digital services, which not only prioritizes regions with adequate infrastructure, but also reaches all levels of society, without exception. Thus, the benefits of digital innovation can be felt equally by all BPJS Ketenagakerjaan participants throughout Indonesia.

Data security and privacy are very crucial aspects in the implementation of digital innovation. Along with the growing digitization of services, the risks related to personal data leaks and the threat of cyberattacks are also increasing. This is a serious concern, because this problem has the potential to damage the level of public trust in BPJS Employment digital services. Especially because the

management of participant data, which is highly sensitive, requires a system that is not only efficient but also has a high level of security to protect personal information from various increasingly sophisticated threats in cyberspace.

User trust in digital services is highly dependent on the extent to which BPJS Ketenagakerjaan can guarantee the security and confidentiality of the personal data managed. In this context, it is important for BPJS Ketenagakerjaan to continue to invest in sophisticated security technology and ensure that the systems used are always updated to face new threats. By implementing strong security protocols and ensuring secure data encryption, BPJS Ketenagakerjaan can create a safer and more reliable digital environment for participants.

Furthermore, it is important for BPJS Ketenagakerjaan to socialize to the public about the efforts made in maintaining the security of personal data. Education on ways to protect personal data and avoid potential fraud or cyberattacks can also increase user awareness. With this approach, in addition to increasing the sense of security for participants, BPJS Ketenagakerjaan can also strengthen their position as an institution that is not only innovative, but also responsible in maintaining the privacy and data of its users.

In addition, this process requires a long time and a lot of effort, both in terms of careful planning and proper execution. The teams involved must ensure that each feature implemented functions optimally, without disrupting the running of existing services, and is able to meet the needs of all participants and stakeholders. Thus, the success of this adaptation is highly dependent on managerial abilities in planning, managing resources, and conducting continuous evaluation so that the application can continue to evolve according to the demands of the times.

Socialization that has not been maximized is one of the main obstacles in increasing the adoption rate of the JMO application. There are still many participants who are unaware of the existence of this application, even if they do, most do not understand the benefits that can be obtained from its use. In fact, the success of a digital innovation largely depends on the extent to which users, in this case BPJS Employment participants, take advantage of the services provided. Without a clear understanding of the app's functionality and benefits, many participants are reluctant or hesitant to use it, which ultimately hinders the app's potential to make an optimal impact.

Less effective socialization, both in terms of information delivery and in the way information is disseminated, can reduce the level of participant engagement and hinder the potential for widespread use of the JMO application. For example, if socialization is only carried out in one direction or limited to certain channels, participants who may not be active in those channels will miss important information. In addition, if the information presented is not sufficiently intriguing or less relevant to the needs of the participants, they may feel that there is no urgency to use the application.

Therefore, a more structured and thorough socialization approach is needed, which not only relies on the dissemination of information, but also increases participants' understanding of how the JMO application can simplify their service process. This can be done through various communication media that are more interesting and interactive, more intensive training, and more personalized support so that participants feel more comfortable and confident in using the application. Without maximum efforts in terms of socialization and education, the JMO application risks not reaching its full potential as a digital solution that benefits all parties involved.

In addition, regulatory barriers are also one of the major challenges in the implementation of digital innovation in various sectors, including in BPJS Ketenagakerjaan. Some of the current administrative rules may not fully support or accelerate the transformation towards digitalization. Many regulations are still based on manual or conventional procedures, which makes it difficult to adopt new technologies and provide services online. The regulatory adjustment process often takes a long time, as it involves various parties, such as policymakers, regulators, and related agencies who must consider the legal and social impact of the changes.

Non-compliance with regulations with the needs of digitalization can slow down the implementation of innovation, and can even hinder the achievement of the digital transformation goals themselves. For example, vagueness or deficiencies in rules governing the protection of personal data, the security of electronic transactions, or the legal recognition of digital signatures can cause doubts among users and managers of digital systems. In addition, some regulations may still require the use of manual systems that are more time-consuming, labor-intensive, and costly, even though with the implementation of digitalization, the process can be accelerated and more efficient.

With these regulatory barriers, it is very important to conduct studies and revisions to existing policies in order to accommodate technological developments. A fast and appropriate regulatory adjustment process will accelerate the implementation of digital innovation and allow organizations or institutions to be more responsive to changing societal needs. Therefore, more intense collaboration between the government, related institutions, and other stakeholders is key in creating a regulatory ecosystem that supports digital transformation effectively and efficiently.

Despite facing various obstacles, BPJS Ketenagakerjaan continues to strive to overcome existing challenges and ensure the success of digital transformation. These efforts include various strategic steps aimed at increasing community involvement in the use of technology. One of them is increasing digital literacy, which is carried out through various educational and training programs to the wider community. This program aims to introduce digital technology and applications in an easy-to-understand way, so that the public can be better prepared to take advantage of the digital services provided by BPJS Ketenagakerjaan.

In addition, BPJS Ketenagakerjaan also focuses on expanding internet access as an important step to reduce the digital divide. In this case, cooperation with telecommunication service providers is the key to expanding internet coverage in areas that still have limited access, so that BPJS participants throughout Indonesia can access services more easily and evenly. Another effort is to strengthen the data security system, which is a top priority to protect the privacy and personal information of application users. This security system improvement is not only to prevent data leaks, but also to increase people's sense of security and trust in the digital services provided.

On the internal side, BPJS Ketenagakerjaan also realizes the importance of human resource readiness in facing digital changes. Therefore, internal training for employees is carried out regularly to improve their technical skills and understanding of the latest digital systems. This is important to ensure that all employees can adapt well and support the smooth digital transformation across all service lines.

The continuous development of the JMO application is one of the main focuses, with the addition of new features that are more informative and tailored to the needs of participants. These features are designed to make it easier for participants to access various services and information related to social security. In addition, more intensive socialization is also carried out through various communication channels, both digital and traditional, to ensure that the wider community is aware of the benefits and conveniences offered by the JMO application. With a more comprehensive and integrated approach, BPJS Ketenagakerjaan hopes to increase the adoption rate of the application and provide better and faster services to all participants in Indonesia.

With these strategic steps, BPJS Ketenagakerjaan is committed to overcoming various existing challenges and realizing an inclusive and sustainable digital transformation, in order to provide more efficient and adequate services for all participants, without exception.

The Impact of BPJS Employment Digital Innovation on the Welfare of Indonesian People

The Social Security Mobile (JMO) service is a direct implementation of the Regulation of the Minister of Manpower of the Republic of Indonesia Number 2 of 2022 concerning Procedures and Requirements for Payment of Benefits of the Old Age Insurance Program (JHT) (Putri et al., 2023). This regulation aims to simplify and accelerate the administrative process in social security services, especially in terms of the payment of JHT benefits. One of the important provisions stipulated in this regulation, especially in Article 18, is that the application for JHT benefit payments can now be done online, through applications or digital platforms that have been provided by BPJS Ketenagakerjaan (Putri et al., 2023).

This provision is designed to make it easier for JHT participants to access and submit their claims without having to come directly to the BPJS Employment

office, thereby reducing waiting time and improving service efficiency. With the ease of online application, participants can more quickly complete the administrative process and receive JHT benefits in accordance with applicable regulations. In addition, this online system also provides flexibility for participants who are in remote areas or who have limited time to access services directly.

Through the implementation of the JMO service, BPJS Ketenagakerjaan not only complies with the regulations that have been set by the government, but is also committed to continuing to innovate in providing easier, faster, and more efficient services for all participants. This digital service is part of a broader digital transformation in the social security system in Indonesia, which aims to increase accessibility and transparency in every service process provided to the community. Along with that, the JMO application has provided convenience and convenience for users, especially in the JHT claim process through electronic services.

With this system, the implementation of services becomes more efficient because the disbursement process can be carried out faster without long waiting times, as well as simpler requirements than conventional methods. Currently, almost 70% of services related to Old Age Insurance (JHT) have been facilitated and can be accessed through the JMO application, including the JHT balance checking feature, JHT claim submission, and other services. However, the current JMO application still has limitations, because it only supports the submission of JHT claims for balances below 10 million rupiah (Sarah Dinda Hanifa & Nida Handayani, 2024).

BPJS Ketenagakerjaan continues to develop the JMO application to cover other insurance programs, such as Work Accident Insurance, Death Insurance, and Pension Insurance. This development aims to ensure that all services related to the guarantee program can be facilitated through the JMO application in the future, so as to provide greater convenience and efficiency for users.

The JMO app is designed to provide maximum benefits to the workforce through a variety of innovative and practical features. These features include the registration of new participants for various categories, such as Wage Recipients (PU), Non-Wage Recipients (BPU), and Indonesian Migrant Workers (PMI), so that BPJS Employment services can reach all levels of the working community. In addition, this application provides complete information related to membership data, Old Age Insurance (JHT) balances, online JHT claim services, and easy access to BPJS Employment programs.

Not only that, users can also take advantage of the complaint feature to report problems, make payments and report contributions quickly, and access digital cards that function as membership identities. All of these features are designed to meet various user needs, from membership management to optimal use of social security programs.

With the integration of advanced technology, the JMO application provides ease of access and convenience in managing membership needs practically, without the need to come to a branch office. The presence of these features reflects BPJS Ketenagakerjaan's commitment to providing modern, efficient, and supportive services for the welfare of the workforce in Indonesia.

Most of the informants revealed that the information available in the JMO application has been well realized and meets user expectations. The availability and completeness of the necessary information provides real benefits for users, as conveyed by one of the participants (Sarah Dinda Hanifa & Nida Handayani, 2024). Prior to the presence of the JMO application, access to information services such as contribution payments and balance checks could only be done by visiting the nearest BPJS Employment branch office. This process is often time-consuming and labor-intensive, especially for participants who live far from the service center.

However, the launch of the JMO application brought significant changes. Now, various information services can be accessed directly through smartphones, making the process faster, more efficient, and more practical. The excellent features in this application include registering new participants, checking balances, payments and contribution information, digital cards, and other membership data. With just a few simple steps, participants can obtain important information without having to leave the comfort of their homes or workplaces.

This digital transformation not only improves the ease of access to services but also creates efficiency in managing user time and manpower. The presence of the JMO application is clear evidence of BPJS Ketenagakerjaan's success in utilizing digital technology to improve service quality. This step not only strengthens BPJS Ketenagakerjaan's position as an institution that is adaptive to changing times but also shows their commitment to providing inclusive, modern, and relevant services for the wider community.

The JMO application is designed with high flexibility to make it easier for users to interact with BPJS Ketenagakerjaan anytime and anywhere. This feature includes various forms of interaction, including direct communication between BPJS Ketenagakerjaan participants and the Customer Service Officer (CSO), who is in charge of handling claim services through the application. With this approach, JMO has succeeded in creating a digital service ecosystem that provides significant convenience for its users, according to their needs and expectations.

To support the ease of the claim service process, the JMO application was developed with the principle of user-friendliness, ensuring that every user can access and operate this application easily and comfortably. The intuitive and efficient interface design allows every stage of claims service to run smoothly without significant obstacles.

In addition, the development of the JMO application is carried out on an ongoing basis, including technology updates, the addition of new features, and the improvement of existing features to make them more informative and relevant to user needs. This initiative is designed to provide an optimal digital experience and ensure that the JMO application can continue to evolve in line with the dynamics of people's needs. With this commitment, JMO is not only an administrative tool, but also a strategic solution in increasing the satisfaction and comfort of BPJS Employment participants. Digitalization implemented through the JMO application provides innovative solutions to reduce administrative burdens that have been a challenge for BPJS Ketenagakerjaan.

With this reduction in burden, this agency can more freely direct its focus on developing strategic programs that aim to support the needs of the community as a whole. This digital transformation not only improves operational efficiency, but also strengthens BPJS Ketenagakerjaan's commitment to providing better services to the community. Overall, digital innovation through JMO has a very positive impact on the welfare of the Indonesian people. Services that are now more accessible, fast, and transparent create a more convenient experience for users, while strengthening trust in the social security system.

With this convenience, the public can experience real benefits from BPJS Ketenagakerjaan services that are more responsive and inclusive. This is expected to support the creation of a more prosperous, sustainable, and future-oriented community.

CONCLUSION

The implementation of digital innovation in BPJS Ketenagakerjaan, especially through the Jamsostek Mobile (JMO) application, has become a strategic step in improving the quality of public services and worker welfare in Indonesia. This innovation provides ease of access, time efficiency, and transparency in the management of social security services such as Old Age Insurance (JHT), Pension Insurance (JP), and Work Accident Insurance (JKK). By adopting digital technology, BPJS Ketenagakerjaan is able to reach more participants, both formal and informal workers, and provide a better user experience. However, this transformation is also faced with a number of challenges, such as the low level of digital literacy, limited technological infrastructure in remote areas, technical obstacles in application features, and regulatory barriers that have not fully supported the digitization of services. Nevertheless, BPJS Ketenagakerjaan's efforts in improving and developing technology-based services show great potential to overcome these obstacles and realize inclusive and sustainable public services.

Overall, the digitization of BPJS Employment services through the JMO application has a significant positive impact on the welfare of workers. This application simplifies the administrative process, improves the efficiency of claims management, and provides greater flexibility to participants in accessing various services. However, there is still a need to improve several aspects, such

as strengthening the data security system, developing more comprehensive features, and increasing socialization and education related to the benefits and use of applications. With these steps, BPJS Employment can not only improve service quality, but also increase public trust in the digital transformation that is being carried out. The application of digital innovation in BPJS Ketenagakerjaan, especially through the Jamsostek Mobile (JMO) application, has become a strategic step in improving the quality of public services and worker welfare in Indonesia. This innovation provides ease of access, time efficiency, and transparency in the management of social security services such as Old Age Insurance (JHT), Pension Insurance (JP), and Work Accident Insurance (JKK). By adopting digital technology, BPJS Ketenagakerjaan is able to reach more participants, both formal and informal workers, and provide a better user experience. However, this transformation is also faced with a number of challenges, such as the low level of digital literacy, limited technological infrastructure in remote areas, technical obstacles in application features, and regulatory barriers that have not fully supported the digitization of services. Nevertheless, BPJS Ketenagakerjaan's efforts in improving and developing technology-based services show great potential to overcome these obstacles and realize inclusive and sustainable public services.

SUGGESTION

Increasing Digital Literacy: BPJS Ketenagakerjaan needs to initiate more intensive and inclusive education programs to improve participants' digital literacy. This program can be done through live training, seminars, or online campaigns that explain how to use the JMO application and its benefits for participants.

Development of Technological Infrastructure: The government and BPJS Ketenagakerjaan need to expand internet access in remote areas to ensure that all participants can enjoy digital services. Cooperation with telecommunication service providers can be a solution to reduce the digital divide.

Improvement of Application Features: BPJS Ketenagakerjaan should continue to develop the JMO feature to cover a wider range of services, such as claims with large balances and the integration of additional services. Improvements to a more intuitive user interface are also needed to improve the comfort of participants.

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Strengthening Regulation and Data Security: There needs to be a revision to regulations that support digital transformation, including the protection of

personal data. In addition, BPJS Ketenagakerjaan needs to adopt more sophisticated security technology to prevent data leaks and cyberattacks.

More Effective Socialization: BPJS Ketenagakerjaan must improve its socialization strategy through various channels, both digital and traditional, so that more participants know and utilize the JMO application. This can also be done by providing responsive customer service support to help participants overcome technical obstacles

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