# A Comparative Analysis Between Conventional And Digital Office Administration Systems At The Office Of Population And Civil Registration Of Bangka Regency

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# Abstract

Along with the advancement of information technology, significant changes have occurred in the way information management and administrative processes are conducted. Traditional office administration has migrated to the digital world, resulting in a shift from conventional office administration based on the use of paper, physical documents, and manual processes to digital office administration that prioritizes the use of technology to store and manage various data and information. The digitization of office administration is flexible or adjusted to the development of a company, including government agencies. Government agencies are organizations with governance systems that refer to legislation. The Department of Population and Civil Registration of Bangka Regency is an example of a government agency with a function in the population system activities in Indonesia, including the management of identity documents. The high intensity of activities in issuing many identity documents, along with the growth in population, certainly requires the management of a digital administrative system.

Keywords: Comparative Analysis, Office Administration, Digitalization

# I. Introduction

During the Covid-19 pandemic, all aspects of people's lives around the world have been greatly affected, including health, society, culture, education, politics, the economy, and other areas facing strain. Similarly, in Indonesia, the spread of Covid-19 has not only occurred in major cities but has also reached rural areas, resulting in thousands of deaths and tens of thousands of infections. As a result of the pandemic, many people have been laid off (Termination of Employment), and people have been required to work remotely, commonly known as Work From Home (WFH), until the pandemic subsides. In the new normal era after the pandemic, digitalization has begun to be used, and now almost all systems have switched to digital, including office administration systems. In the new normal era, service quality is crucial in business competition.

Behind every great business, there is a good office administration system, especially procedures such as file organization, scheduling, and others. Employees need structure and the ability to rely on various administrative structures to perform their jobs as best as possible while keeping up with the pace of challenging business. Office administration itself is a series of clerical activities related to management, including planning, organizing, directing, supervising, controlling, and implementing policies, as well as financial planning, human resource management, inventory distribution, logistics, and correspondence related to company operations.

With the advancement of information technology, significant changes have occurred in the way information and administrative processes are managed. The emergence of computers, the internet, mobile devices, and other technologies has enabled a massive transformation in office administration, for example, file storage systems on computers that make it easier for institutions or companies to store or retrieve desired data. Conventional office administration has migrated to the digital world, causing a shift from conventional office administration based on the use of paper, physical documents, and manual processes to digital office administration that emphasizes the use of technology to store and manage various data and information.

The existence of digital office administration greatly facilitates every worker in performing their duties, including correspondence activities. Thus, the application of technology in a company through the use of office administration applications becomes easier and lightens the workload. However, digital office administration still has several challenges that need to be addressed, including data security issues, cyber threats such as hacking and data breaches, ethical challenges, and access equality.

# II. Literature Review

#### 1. Definition of Office Administration Systems

The definition of administration, office administration, conventional office administration, and digital office administration are derived from the term administration, which involves the organization and recording of data in the clerical management of an institution. Office administration is the process of collaboration within an institution to achieve its objectives as established. Conventional office administration refers to traditional methods used in the past, while digital office administration employs technology to facilitate work and save time, effort, and costs.

According to Haryadi (2009), administration in a narrow sense is the systematic organization and recording of data and information to provide information and make it easily retrievable, commonly known as clerical work. Sedarmayanti (2017) states that office activities focus on presenting comprehensive information supported by an appropriate system and facilities, as well as robust procedures.

According to Ramadhan et al. (2021), the advancement of technology requires human resources to adapt to changes and developments, where society must coexist with technology. Daily work and activities inevitably involve the use of technology, including in office administration. Significant changes in office administration, through the use of digital technology, have led to increased efficiency in administrative tasks. The implementation of digital systems necessitates the shift from conventional to digital methods. The use of digital systems in archiving activities can reduce the burden on employees, saving time and effort. Digital archives also save space required for storing large amounts of physical records.

Research by Sarbani (2021) shows that one part of office administration impacted by the transition from manual to digital systems (digital transformation) is correspondence and archiving activities. This transition creates differences in usage and outcomes when comparing the two systems.

# **2.** Operational Efficiency in Digital Office Administration Compared to Conventional Office Administration

Leveraging current information technology is expected to help complete tasks more effectively. Digital office administration systems, such as digital letters, play an important role in enhancing performance. A digital letter is a letter in a digital format written using a computer, allowing data to be quickly and accurately obtained (Hartono & Wardani, 2019). The development of information technology also significantly impacts office management, especially in handling correspondence. Correspondence is a communication tool used to convey written information from one party to another (Situmorang et al., 2021).

The operational efficiency of digital office administration compared to conventional office administration is clearly higher, as almost everything can be accessed more easily, quickly, and without costs, enabling employees to work from anywhere without difficulties, especially in administrative and correspondence tasks.

# **3.** Technical Challenges in Implementing Digital Office Administration Systems

Each institution faces its own technical challenges. These technical challenges can be minimized or addressed according to their specific nature. The numerous technical challenges of digital systems require employees to understand potential issues, necessitating skills to help prevent technical challenges in each institution, thereby reducing or resolving them.

Research by Ziyadin et al. (2020) in Kazakhstan shows that the success of the Kazakhstan Digital program implementation depends on the consistency of strategic plans for social and economic development, vision, state policies, social and business sectors. Thus, public administration digitalization requires the development of new regulations, including the transformation of existing state institutions. Currently, digitalization is not only a modern trend but also essential for addressing national security issues, with high levels of digitalization required to solve these challenges.

Smotritskaya (2017) states that the need for a new trend in social, political, and economic environments will face several challenges and obstacles. The key to solving urgent issues related to digitalization risks lies in government management of the digital economy, as only the government has the authority to create relevant policies.

# 4. Comparative Analysis Concept

This research uses comparative analysis to find differences and similarities in the studies conducted. Comparative analysis also reveals weaknesses in research design, helping researchers improve their research quality. A comparative study is a method that analyzes several phenomena by collecting related data to identify differences and similarities (Mokhtarianpour, 2016).

According to Sa'ei (2013), comparative analysis can be divided into several types: quantitative, qualitative, and random. Quantitative comparative analysis is variable-oriented, qualitative analysis is caseoriented, and random comparative analysis focuses on data collection. Each comparative study is conducted with a specific method according to its purpose, scale, and scope. However, the selection of this method often occurs during the research process, requiring researchers to reconsider and revise their methods. This aligns with Freiberger's (2019) statement that the research process is complex and unpredictable from the outset.

# 5. Population and Civil Registration Office of Bangka Regency

In the context of regency/city administration, the Population and Civil Registration Office of Bangka Regency is an institution responsible for civil registration activities in Bangka Regency. According to Bangka Regency Regulation No. 32 of 2021 on the Determination of Regional Innovations of Bangka Regency in 2021, digital transformation with technological innovation must be implemented in related offices to enhance government performance, reform, accelerate bureaucratic optimize regional innovation application, and establish cooperation among regional apparatus for innovation development. The Population and Civil Registration Office manages population data and provides civil registration and administrative services in the region. The office is responsible for serving and providing population administration services to the public, such as recording population data, issuing birth certificates, death certificates, marriage certificates, and others.

# III. Material and Method

The author conducted the research in September 2023 and prepared the thesis proposal until February 2024 to gather the necessary data. The research was carried out at the Population and Civil Registration Office of Bangka Regency, located at Jl. Jend Ahmad Yani, Parit Padang, Sungai Liat, Bangka Regency, Bangka Belitung Islands, 33215, Indonesia. Phone number: (0717) 92756.

#### **3.1 Research Design**

This research was conducted using a qualitative method. Qualitative research is performed in specific life settings to investigate and understand phenomena, what happens, why it happens, and how it happens. In other words, qualitative research is based on the concept of "going exploring," involving in-depth and case-oriented studies or several single cases according to Rijal (2021).

Qualitative research seeks to discover and narratively describe activities and the impact of actions on their lives. Qualitative research is grounded in post-positivism philosophy because it is useful for investigating natural objects (as opposed to experiments), where the researcher acts as the key instrument. Sampling and data sources are conducted purposively and through snowballing, data collection techniques involve triangulation (combination), data analysis is inductive/qualitative, and qualitative research results emphasize meaning rather than generalization.

#### **3.2 Data Sources and Research Sample**

The unit of analysis in this activity is the employees of the Population and Civil Registration Office who have worked for more than 5 years at the Population and Civil Registration Office of Bangka Regency. The number of participants in this study is 5 employees of the Population and Civil Registration Office.

#### **3.3 Data Collection Techniques**

#### 1. Literature Study

Literature study involves studying various reference books and previous similar research results to gain a theoretical foundation on the issues to be studied. The aim is to understand a topic or theme in greater depth. This topic is adjusted to the topic discussed in the writing.

#### 2. Interviews

Interviews are used as a data collection technique to determine the problems to be studied and to gain deeper insights from respondents. In this interview technique, the researcher uses open interviews. Open interviews allow informants to argue and are not limited to yes or no answers.

#### 3. Documentation

Documentation is a method used to obtain data and information in the form of books, archives, documents, written numbers, and pictures, such as reports and statements that can support the research. Documentation is used to collect data and then review it. The author uses documentation data collection techniques to ensure the data obtained has accurate physical evidence.

# **3.4 Analysis Techniques**

# 1. Data Collection

Data collection techniques are methods used to gather data for research purposes. This means that data collection techniques require precise, systematic, and strategic steps to obtain valid and accurate data according to the actual conditions in the field. These techniques ensure that the data and theories in the research are valid, accurate, and aligned with reality.

# 2. Data Reduction

Data reduction involves summarizing, selecting the essential points, focusing on important aspects that align with the research topic, identifying themes and patterns, and ultimately providing a clearer picture and facilitating further data collection. Data reduction is guided by predetermined goals and requires critical thinking and deep insights.

# 3. Data Presentation

After reducing the data, the next step is to present the data. In qualitative research, data can be presented in tables, graphs, flowcharts, pictograms, and similar formats. This organization helps make the data easier to understand. Additionally, qualitative data presentation can be in the form of brief descriptions, diagrams, category relationships, flowcharts, etc., but narrative text is often used in qualitative research. This organized data presentation makes it easier to comprehend.

### 4. Drawing Conclusion

The final step in qualitative research analysis is drawing conclusions. Conclusions in qualitative research can answer the problem statements formulated at the beginning, but they may also evolve as the research progresses. Conclusions in qualitative research represent new findings that were not previously evident. These findings can be descriptions or depictions of objects that were unclear before but became clear after the research. The final result of this research will be interpreted based on field facts from the interview results.

# IV. Result

In this study, the first topic addressed is understanding the distinction between conventional and digital office administration systems, as well as the process of transitioning from conventional to digital office administration systems. This understanding of definitions is intended to provide a foundational understanding of the two definitions of conventional and digital office administration systems for employees of the Population and Civil Registration Office of

Bangka Regency. Responding to questions about the definitions of conventional and digital office administration systems, five participants stated that conventional office administration systems involve manual work such as the use of agenda books, a lot of paperwork, and physical delivery services.

Digital office administration utilizes digital systems, tools, or applications to facilitate tasks for office employees. The transition from conventional to digital office administration at the Population and Civil Registration Office of Bangka Regency took quite some time. Reasons for this transition included the irrelevance of conventional systems in today's era, the need to enhance services for the public, and governmental support to adopt digital systems to keep up with modern developments. The extraordinary event of the COVID-19 outbreak at the end of 2019 further accelerated the adoption of digital systems. With digital systems in place, employees expected all tasks to be more effective and efficient compared to conventional systems. All five participants provided similar answers, indicating their understanding of these definitions.

Apart from questions about the definitions of conventional and digital office administration, there were inquiries about the advantages and disadvantages of digital office administration systems. According to the five participants, the advantages include faster accessibility, significant cost and time savings. However, four participants noted issues with system network, internet connectivity, and electricity reliability as disadvantages, while one participant highlighted financial concerns, particularly limitations in financial features within the application.

The trend of digital transformation has permeated nearly every aspect of societal life, given the numerous benefits of digital technology itself. One area where digital technology has been effectively utilized is in administrative systems. This technology has helped improve access to information for the general public and enabled swift access. Its significant management function has enhanced productivity and efficiency at work. Some examples of the benefits of digital transformation in administrative systems include reducing document handling times, streamlining administrative processes, aiding synchronization, and enhancing operational transparency and honesty to the public, which builds trust in institutions. Therefore, the primary focus of economic development in a country today is introducing the latest digital systems into public administration that previously relied on conventional systems (Tiach and Abdellatif, 2023). All five participants answered questions with similar responses, indicating their understanding of the strengths and weaknesses of digital office administration systems.

The characteristics of an application in the digital transformation of

an institution, oriented towards accessibility and effectiveness in work, can be illustrated through several key functions: digitalization, which introduces innovative technologies to the institution's members; analytical function, where new data obtained through technology is processed into conclusions or new ideas; and operational function, which changes personal behaviors and results in new outcomes (Premuzic, 2021). For instance, in office administration applications, digital letters are easily handled and processed, reducing the potential for lost or damaged letters. All five participants provided consistent answers that the process of transitioning from conventional to digital office administration systems began around 2011 and continues to this day.

In addition to questions about the process of transitioning from conventional to digital office administration systems, there were inquiries about the departments within the Population and Civil Registration Office of Bangka Regency that have adopted or transitioned to digital systems. All five participants responded that four departments and one secretariat have implemented digitalization in their offices. All five participants provided identical responses confirming that indeed, all departments within the Population and Civil Registration Office have transitioned to the era of digitalization.

In the second part of the study concerning the impact of digital office administration systems on administrative work, four questions were posed. The first question asked about the impact of digital systems on office administration. All five participants responded similarly, stating that digital systems facilitate and assist in work, are easily accessible, save time and costs, and speed up processes significantly.

According to Farid, Well & Ahmed (2018) cited in Dwi Andani (2020), information technology provides advantages in administration, where electronic-based tools are easier to use compared to manual technologies. Additionally, technical advancements that match technological progress significantly impact administration, facilitating communication and improving work efficiency and organization. All five participants responded similarly, agreeing that digital systems indeed simplify all tasks.

The second question, concerning the negative impacts of digital systems, saw all five participants highlighting network and electricity issues in their responses, causing delays in tasks that otherwise could be swiftly completed. One participant also mentioned negative impacts related to technological advancements, resulting in insufficient skills in applying digital systems.

Ramadhan et al. (2021) stated that advancing technology demands that humans keep pace with change, as society integrates technology into daily life and office administration. Significant changes in office administration through digital technology enhance efficiency, a consensus among all five participants who agreed on the efficiency improvements due to digital system implementation, albeit one participant noted ease in using conventional/manual methods due to lacking digital system application skills.

The concept of generational differences underscores the importance of information technology in digital transformation. Historically, older generations may prefer face-to-face meetings over video teleconferencing tools. However, the internet enables longdistance social interactions, access to health information, and connections through online communities and social media. necessitating awareness of digitalization's importance, particularly for older generations (Konig & Selfert, 2022). All five participants agreed that the main challenge lies in human resources due to insufficient digital implementation skills, exacerbated by many employees being older and accustomed to manual systems.

Tiara et al. (2023) highlighted the transformation of direct business operations into indirect ones due to rapid technological advancements, intensifying business competition and emphasizing the need for organizational quality enhancement. Such improvements can be achieved through various employee training initiatives aimed at enhancing knowledge, development, and skills. Digitalization now dominates various aspects of life, including training and learning, with digital-based training offering advantages such as time and location flexibility, interactive media, personalized learning plans tailored to individual needs, simulation technologies to enhance competence without real-world risks, rapid update capabilities for training materials, cost efficiency, and accessibility for all employees.

#### V. **Conclusion, Implication, and Recommendation**

# 1. Conclution

All five participants also stated that the security level in the digital system is well protected, with high and maintained security levels. The office uses both conventional and digital systems for storing vital population archives, with no actual risk except for occasional operational issues related to network and electricity.

1. Employees of the Population and Civil Registration Office of Bangka Regency share a common understanding of conventional and digital office administration systems, where 100% of participants understand that these definitions focus on cost efficiency, reduced paper usage, direct mail delivery, time efficiency, and human resource management.

2. The process of transitioning from conventional to digital systems at the Population and Civil Registration Office of Bangka Regency began in 2011 and has since fully implemented digital systems. The digitalization of office systems started around mid-2023 and continues to the present.

3. The impact of digital systems on office administration is that they facilitate and streamline tasks, are easily accessible, save time and costs, and expedite work processes.

4. Operational efficiency in digital office administration compared to conventional methods is significantly higher due to faster and more effective work processes.

5. Technical challenges faced in implementing digital office administration systems include insufficient human resources proficient in digital applications, as well as limitations in network and electricity resources that can delay work.

# 2. Implication

The research findings support previous studies conducted by (Alfitah Carellina Ramadhan, Christian Wiradendi Wolor, & Marsofiyati, 2023), (Sutatik, 2014), (Bambang, 2013), (Raida et al., 2023), (Febiyanti et al., 2023), and (Ridho, 2023). The results indicate that digital office administration systems are crucial for enhancing the effectiveness and efficiency of operational activities at the Population and Civil Registration Office of Bangka Regency. These systems replace previous manual methods such as paper document usage, manual courier services, queue waiting times for services, and the need for large document storage spaces, addressing these shortcomings. However, the study also identifies several challenges and obstacles in the implementation process, primarily related to operational digital skills and varying levels of interest among older employees at the Population and Civil Registration Office of Bangka Regency.

The research findings indicate that the implementation of digital office administration systems at the Population and Civil Registration Office of Bangka Regency has fully transitioned to a more effective and efficient digital system, while still being supported by manual archive documents. This statement is supported by participant statements in the study, affirming that the adoption of digital systems has significantly eased all tasks at the Population and Civil Registration Office of Bangka Regency.

### 3. Recommendation

Through this study, the author concludes that the Bangka Regency government, represented by the Population and Civil Registration Office, is open to further research on office administration. There are opportunities to conduct related research in other government offices aimed at improving public service. Since most of the Bangka Regency government has already implemented digital office administration systems through applications, exploration of other variables related to office administration is feasible.

Based on the research findings, which indicate that digital office administration at the Population and Civil Registration Office of Bangka Regency is advantageous in the current era, potential variables for further investigation include the application of digitization to other areas such as personnel administration, finance, or public services within the Population and Civil Registration Office of Bangka Regency.

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