Digital Conversion of Document Management at Thu Dau Mot University, Binh Duong Province

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ABSTRACT: Currently, in management and administration activities, Thu Dau Mot University produces a large amount of management, administration, and direction information stored in text form. To meet the development requirements of the 4.0 Industrial Revolution, the School needs a scientific method to facilitate the management, search, exploitation and use of text information effectively, to contributing to solving tasks quickly and accurately, while preserving grounds and evidence such as documents serving inspection and inspection work. In the article below, the author focuses on analyzing the benefits as well as the difficulties and challenges of digital transformation in document management, thereby proposing a number of solutions aimed at successfully building a school model. Smart, modern university.

KEY WORD: Benefits, challenges, digital transformation, document management.

1. INTRODUCTION

Since the beginning of human civilization, texts have been formed on many different types of materials such as stone, bark, cloth and paper. Document is written information communicated by language or symbols, formed in the activities of agencies and organizations and presented in the correct format and notation according to regulations. [1] Text is used as a tool and means with the purpose of conveying information from one subject to another across space and time.

Each agency has specific functions and tasks, daily producing documents to record, communicate and store information. Over time, more and more documents are produced and need to be managed scientifically to facilitate searching and use when necessary. This is an activity, an indispensable content in clerical work, which directly affects the quality of management activities. "Document management is applying professional measures to receive and transfer quickly and promptly, ensuring the safety of documents formed in the activities of agencies and organizations".[2]

Thu Dau Mot University is a public university, directly under the People's Committee of Binh Duong province, with the mission of training quality human resources to serve the socio-economic development and international integration of Binh Duong province, the East. Southern key economic region with the vision of becoming a smart university, actively researching, learning, collaborating, and applying scientific and technical achievements to the University's activities. In recent years, the School has paid great attention to digital transformation of activities, most notably converting the traditional education model to digital education during the complicated Covid-19 pandemic in the province. Binh Duong. In addition, the School is very interested in document management, has been implementing the issuance of outgoing documents, receiving and processing incoming documents through document management software connected to the document management software. Document management of Binh Duong province, converting traditional document management activities to software and cyberspace management. However, during the implementation process, the School still faces many difficulties such as the construction document management software that does not meet the requirements and expectations of actual document management; lack of consistency in implementing business processes; lack of regulations and regulations on document management in the online environment. In addition, the knowledge and skills of digital transformation in document management among officials are uneven; Many people still have not proactively changed their habits of using paper documents and a number of other issues. Therefore, in the article the author will analyze the opportunities and challenges of digital transformation of document management, thereby proposing some solutions to help Thu Dau Mot University improve its quality. university administration, gradually enhancing its position in the region and internationally.

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2. THEORETICAL BASIS

2.1. Concepts and definitions

Up to now, there has not been a specific definition of digital transformation because the content of digital transformation is quite broad and diverse; The digital transformation process in different fields will be different.

According to Viral, Gregory (2019) digital transformation is "a process that aims to improve an entity by making significant changes to its attributes through a combination of information technology, computing, communications and connectivity".

Gartner - a global research and consulting company defines digital transformation as "the use of digital technologies to change business models, creating new opportunities, revenue and value". .

According to Microsoft Corporation - a multinational company specializing in manufacturing and developing software, "digital transformation is the application of technology to completely change traditional processes, products and services." into highly connected, data-driven solutions that increase efficiency and create entirely new business models."

According to the author, digital transformation is the process of changing from basic to comprehensive methods of production, operations and management by applying new technologies such as big data (Big Data), artificial intelligence (Big Data), artificial intelligence (Big Data). AI), Internet of Things (IoT), cloud computing (Cloud),... This process takes place in all areas of social life such as health, education, finance - banking, transportation transportation, logistics,...

In Vietnam, digital transformation in the field of education was signed by the Prime Minister, Decision No. 131/QD-TTg dated November 25, 2022, deciding to approve the Project "Strengthening the application of information technology and digital transformation in education and training in the period 2022 - 2025, orientation to 2030".[3] With the general goal of: "Taking advantage of technological advances to promote innovation in teaching and learning, improve quality and opportunities to access education, and effectively manage education; building an open, adaptive education on a digital platform, contributing to the development of digital government, digital economy and digital society."

Digital transformation in the field of education is a process of change carried out on the following contents: (1) digital transformation in the school's management and administration activities; (2) digital transformation in teaching and learning activities; (3) forming and developing digital learning resources by applying new technologies such as big data (Big Data), Internet of Things (IoT), cloud computing (Cloud),... not only changing methods management, administration, working processes, and culture of the School but also contributes to liberating the labor productivity of the staff, improving the effectiveness and efficiency of the School's activities.

Within the scope of this article's research, the author only mentions digital content (1) digital transformation in the school's management and administration activities, including document management, an activity that cannot lacking in the school's clerical and archival work. Digital transformation in document management is the computerization or application of information technology tools and software to build databases to serve the needs of managing, resolving and searching for information in documents, archived documents in university activities, helping to improve productivity and efficiency in training, scientific research, community service, as well as information exchange with outside individuals and organizations. outside school. The document management database helps School Leaders and Unit Leaders fully, quickly and accurately grasp the situation of receiving, issuing and resolving documents, urging and checking the resolution. Documents are convenient, creating conditions for strict management of documents formed in the agency's activities and providing timely information for management activities.

However, digital transformation in document management is not simply about editing documents on a computer, managing incoming and outgoing documents on software or digitizing documents into electronic documents,... but at its core. Digital transformation of document management is converting traditional document management regulations and processes to electronic document management in the network environment. Even change the operating method, management, and working culture of agencies and organizations.

2.2. Benefits that digital transformation brings

The effectiveness of digital transformation has been proven in practice over the years, becoming an urgent need for agencies and organizations today. From reports on digital transformation results in 2023 in Vietnam, we can point out some benefits for universities as follows:

Firstly, increase transparency and efficiency in university administration: in reality, the digital transformation process in universities, the School Board of Directors will proactively and easily monitor the implementation of their tasks. units and individuals through digitized data on software. All school activities such as personnel changes, teaching, scientific research, learner management, and facilities management will be displayed on management software. Thanks to that, the Board of Directors will capture information about the School's operations in the most timely, quick and accurate manner, greatly helping the process of making decisions and planning operational strategies for the School. school.

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Second, optimize labor productivity: digital transformation helps officials and employees improve and maximize their labor productivity by minimizing manual, time-consuming work. From there, it helps staff and employees have more time to focus on other more important tasks.

Third, unify data: digital transformation in document management will form a unified data storage system throughout the school. The management of outgoing and incoming documents and document preparation must all be done on document management software. All document data will be formed and stored uniformly in the data center. All individuals can exploit and use decentralized documents through their personal accounts. Only then will text information be stored long-term, safely and scientifically.

Fourth, save costs and budget: According to the e-Signature Statistics: 2021 Market Share Analysis & Data report, it has been shown that the application of digital signatures and electronic signatures has helped millions of businesses save costs in the future. their activities.[4] Details are as follows:

- The total amount of money saved by businesses ranges from 55%-78.62% when switching to electronic signature applications, taking into account the costs of raw materials, management, transportation and registration. (According to LunarPen, 2020).

- 37 minutes versus 5 days is the time difference of using electronic signatures compared to the traditional way of getting signed documents. (According to LunarPen, 2020).

- $19.35 is Salesforce's average savings per document after implementing electronic signatures (DocuSign, 2021).

- An electronic signature software solution can save up to 2.5 billion trees in less than 20 years. (DocuSign, 2020).

Compared to businesses, Thu Dau Mot University's activities are similar in document management of businesses. When converting document management, printing documents for signature to Leaders will be done through signing with a registered digital signature. At the same time, Leaders can also read and sign documents anywhere to ensure they are eligible to sign and approve documents. It not only helps save costs of printing and copying documents, but also shortens the time from the stage of document signing until the person performing the task receives the document, and is also convenient for Leaders while on business trips outside. outside the School.

3. DIFFICULTIES AND CHALLENGES OF DIGITAL TRANSFORMATION IN DOCUMENT MANAGEMENT

Firstly, document management on software is currently considered a support tool, it cannot completely replace the traditional way of solving tasks, it still has to be done in parallel in two management methods. . Only after the outgoing documents and incoming documents are registered in the book (the registration book is made by soft file in excel file format on the computer) are updated into the software database. The issued documents only stopped at digitizing paper documents, not creating and digitally signing electronic documents in accordance with current legal regulations. The School's incoming and outgoing document management process still focuses heavily on traditional paper documents, and has not really applied software to the steps in the document management process. The software is used as a tool to collect statistics and report the number of incoming and outgoing documents, search for documents, and transfer documents to individuals and units. The documentation function on the software has not been thoroughly implemented. Invisibly, the workload of the Secretariat has doubled. Instead of just entering document information into a document management book, the Secretariat now has to digitize documents and enter document information into software, increasing the workload of the office. clerical work increased.

Second, the document drafting process at the advisory unit has not been streamlined. Currently, in carrying out assigned tasks, each unit will assign Specialists according to each task area. There are many specialists who perform their professional tasks very well, but their majors are not trained in drafting and document presentation techniques. So during the drafting step, the document had to be redone many times because the presented content was not accurate and the format of the text was not firmly grasped. Therefore, after drafting the document, it will be transferred to the Secretariat of the unit to check the content and format of the document. If there are errors, corrections must be made. Before initialing the document, the Head of the unit also checked the content and format again before submitting it to the School Leader for signature. Steps to check the content and format of the document by the Unit Head are carried out after printing the document. If the text does not meet the content and format requirements, editing will continue and the text will be reprinted. Thus, drafting documents at the unit must go through many steps and consume a large amount of stationery if it has to be edited many times.

Third, although the School's Secretariat team has qualifications, professional capacity and has been trained and trained, due to the large workload, there are large numbers of incoming and outgoing documents. The secretaries of the units take on many tasks at the same time, and at the same time, taking over the clerical duties of the units when there is a transfer or retirement of officials is also difficult, and the arrangement of personnel is difficult. In charge, it takes a long time if there is not the right

personnel, leading to a backlog of work and documents not being processed promptly according to the prescribed deadline. The level, knowledge and information technology skills of officials in different units are not uniform. Some older officials have a low ability to absorb information technology to serve their work, so the deployment of application software is still low. not achieving the desired results. Besides, the conservative mentality and reluctance to innovate in land management activities is also a big barrier.

Fourth, the IT infrastructure is relatively complete but not synchronous. The computer network system has high transmission speed but there is still network congestion, causing time loss for transmitting, receiving and processing information. exploit data already available online. Most operations are used on computers with a network connection. So if there is a power outage or network outage, the entire system will have to stop working. There is a need to invest and improve the electrical system and Internet network in the School.

Fifth, the School has not yet applied digital signatures in the management and administration of the entire School. It has not been deployed for all units within and under the University to use digital signatures. Digital signature is a new field, the awareness of officials is still incomplete; Deploying digital signatures will have an impact on the workflow and document management, so there needs to be a reasonable implementation roadmap. Besides, the notion that only a "fresh" signature and red seal on a paper document are the only proof that the document is valid will be a barrier in the process of implementing digital signature applications.

4. PROPOSAL

4.1. Innovate awareness, working thinking, and sense of responsibility of Leaders and Experts for digital transformation in document management

First of all, School Leaders need to be proactive in recognizing the role of IT in supporting activities and stages in document management to improve work efficiency; From there, we can orient and foster awareness for the school's staff. It is necessary to directly direct and take responsibility for digital transformation work, closely follow the digital transformation process at the University to be able to grasp the situation, thereby promptly grasping difficulties and problems and quickly responding. solutions and solutions. To do so, School Leaders must be leaders in digital transformation, exemplary in increasing the use of electronic documents in management, administration and information exchange; Research and learn from the experiences of other schools, direct and deploy the application of digital signatures in the school's document management activities, gradually replacing paper documents in management and administration. and exchange information.

In addition, for each specialist in the school, it is necessary to change working habits and methods, from traditional manual document management through papers and books to computer management. Modern machinery with the support of computer networks and specialized software; At the same time, promote the spirit of learning and improve professional qualifications; information technology level, self-improve skills in applying information technology in handling your work. In addition, each Specialist must be responsible for propagating and disseminating to other Specialists to promote digital transformation in work processing, document management, and work file management.

4.2. Strengthen training, fostering and improving the qualifications and skills of public employees

The quality of human activities is the determining factor in the quality of all work. To improve the quality of digital transformation in document management, the issue of improving the quality of the staff working This also needs attention. The objective and pressing requirements for Thu Dau Mot University are not only to train and foster a team of officials with full qualifications and capacity, but also to have the capacity and expertise to execute the project. assigned work, ensuring effectiveness and efficiency.

Training and fostering knowledge about digital transformation in document management must be carried out regularly, with a roadmap, and an appropriate training and fostering program built, close to the practical requirements of the company. undertaking. Training and fostering to improve qualifications must be paid attention and respected. It is necessary to determine: the training and fostering process must be carried out scientifically, with specific plans and appropriate roadmaps, especially now it must be associated with content promoting the application of information technology. and digital transformation.

In order for each official to be well equipped with knowledge, skills and expertise in digital transformation in document management, the School needs to do well the following activities:

- Requirements for all employees working and researching at the University must fully meet basic and advanced computer skills.

- Develop plans to organize long-term, medium-term and short-term training and fostering to improve qualifications for long-term employees or those in development planning. The content of training and retraining needs to be innovated and

improved, diversifying forms of training and retraining, training methods also need to be innovated to create conditions to promote initiative and creativity when learning. knowledge. Develop training and fostering plans and targets in accordance with the University's proposed development orientation and strategy.

- Increase the number of training and refresher classes to 03 - 04 classes/year, which can be done quarterly. Survey and evaluate the quality of training and retraining classes, as a basis for improving or recommending improvements in training and retraining content, changing personnel, providing additional facilities missing.

- Periodically organize capacity testsDigital transformation of the School's Secretariat team and units. Inspection activities will be carried out by School Leaders or in coordination with the Department of Home Affairs. Recommended inspection once a year. Through the inspection results, School Leaders will be able to control professional qualifications, see limitations and take timely corrective measures. There are grounds to change the content, methods, and forms of training and fostering; create conditions to increase awareness and responsibility at work.

- Recruit and supplement good personnel who are graduates of the University with high qualifications, enthusiasm, and adaptability, in order to strengthen highly qualified information technology human resources.

4.3. Apply digital signatures in document management

A digital signature is a form of electronic signature using public encryption technology, used as a personal signature or instead of an organization's seal. Therefore, digital signatures are legally recognized. Digital signatures come in two forms, the first is public digital signatures (applications for businesses and society); The second is administrative digital signature (application for State agencies). Administrative digital signatures are issued and authenticated by the Government Cipher Committee, while public digital signatures used in businesses, people... are provided by digital signature issuers such as the Industry and Telecommunications Group. Military Communications (Viettel), Vietnam Posts and Telecommunications Group (VNPT).

To effectively apply digital signatures, the School Office needs to advise and promulgate regulations on document management that closely adhere to regulations and practical work requirements. Advise on promulgating regulations and rules on the management, storage and use of electronic documents with digital signature applications, so that documents and administrative documents that have been authenticated with digital signatures are assigned. Translated through a legal network system. School leaders need to direct and manage units to focus on doing a good job of disseminating and propagating policies and regulations on digital signatures. Complete information technology technical infrastructure to meet requirements; Timely and complete technical support during the digital signature application process at the University. Promoting the application of digital signatures in document management at the University is considered an effective solution that contributes to creating a modern working environment, saving time and costs, improving the quality of training and research activities. scientific research and community service of the School.

4.4. Invest in funds, information technology infrastructure, and equipment

Along with the rapid development of science and technology, especially the development of information technology, electronic devices such as computers, scanners, photocopiers... constantly change their features and functions. quality, the more modern the higher the quality, the faster the processing speed of the equipment, the sooner the job will be completed. The requirement is that Thu Dau Mot University needs to have policies to invest and upgrade the system of necessary equipment, directly related to the effectiveness of digital transformation in the management activities of the University in particular. general and in document management in particular.

Equipment and facilities are prerequisites for digital transformation in document management. Requires a well-operated computer system, large and long-term storage capacity, and high security. In addition, the School needs to equip a server system with a strong configuration to operate the system, and at the same time be responsible for updating data, promptly replacing when problems arise, controlling the LAN system, ensuring ensure smooth, safe, and network-secure connection, increase the efficiency of using document management software... Build synchronous connection between software in the School to ensure accuracy and timeliness. timely and safe operations from the Office to units under the University and from the School to the People's Committee of Binh Duong province.

4.5. Strengthen inspection and supervision

Inspection and supervision are forms of control in school management, an activity that makes an important contribution to the correct and strict implementation of professional processes. In particular, checking and monitoring digital transformation activities in document management is indispensable.

It is necessary to develop a plan to organize inspection and evaluation of digital transformation work in document management periodically at least once a year combined with unexpected inspections to detect shortcomings in the digital

transformation process. Strengthen guidance and urge the implementation of document management tasks in units within and under the University; Promote self-inspection. Besides, individuals when conducting inspections are required to be very objective, only then can they improve the quality of digital transformation in document management.

5. CONCLUSION

Digital transformation is the most powerful and feasible solution in the current period to quickly achieve the set goals in university administration in general and improve the quality of document management in particular. Digital transformation in document management at Thu Dau Mot University is not simply about modernizing information technology infrastructure and equipment, but also about changing awareness and thinking about the benefits of transformation. change number; on improving knowledge and skills of staff, public employees, etc. Digital transformation will open up opportunities for more cost-effective and more efficient university administration.

The study focused on analyzing the benefits of digital transformation as well as the difficulties and challenges to digitally transform document management. From there, propose some solutions to effectively digitally transform document management at Thu Dau Mot University, Binh Duong province. In the near future, the digital transformation process is expected to bring prestige, quality and efficiency to university administration and improve the quality of training for the University.

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