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Impact of University Document Management System

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ABSTRACT

This study examines the University Document Management System (UMS). A questionnaire-based approach was employed, with a sample of 180 respondents selected through judgment sampling and simple random sampling techniques. The results, analyzed using percentages and Chi-Square analysis, reveal that 56.7% of respondents agree that the UMS negatively impacts the standard of university records and activities. Moreover, 99.3% of respondents consider university document management (UMS) a major concern within the university system. Additionally, 65.3% of respondents do not believe that UMS techniques are effective in the university community. The Chi-Square test results show a p-value of 0.00 (< 0.05), indicating that the UMS pattern has a significant impact on learning standards.

Keywords: *Impact, document, university management system,, percentages, judgment sampling, simple random sampling*

INTRODUCTION

No doubt, the University Management System (UMS) is designed to maintain and manage university, faculty, and student information for easy accessibility. As an automation system, UMS stores and manages data on faculty, students, courses, and other relevant university information. Documentation and management is not only necessary in university but cut across most especially electronic system which is the best. UMS maintains detailed records of student attendance, marks, and other relevant information, from student registration to academic tracking. This integrated system streamlines university operations, ensuring efficient and accurate data management and retrieval.

This project involves developing an intranet-based campus-wide portal that integrates a document management system. The portal facilitates smooth document transfer and management within the organization, promoting efficient workflow. The system collects relevant information from various departments, maintaining organized files that can be used to generate reports in different formats. These reports enable the measurement of individual and overall student performance. The University Management System (UMS) is often mainly interested with maintaining university, faculty, and student information. As an automation system, UMS stores and manages data on faculty, students, courses, and other university-related information. That is from student registration to academic tracking etc. This review presents existing research on university document management systems (DMS), focusing on key challenges, solutions, and best practices. It identifies common problems, such as document duplication, lack of standardization, and inadequate search functionality, and explores solutions, involving:

1. Blockchain-based DMS for universities, ensuring document security, integrity, and transparency (Lietal, 2019).
2. Machine learning-based DMS for universities, enabling automated document classification, tagging, and retrieval (Patelet al., 2020). Document Management Systems (DMS) are essential across all sectors, not just universities. DMS involves managing and storing documents electronically, shifting away from manual methods. This enables institutions to create, store, and modify various

document types, facilitating easy access and communication among students, staff, and other universities.

The primary aim of DMS is to manage and control electronic documentation, including word processing documents, spreadsheets, presentations, access, graphics, and email messages in order to enhance the standard of university's system, by implementing DMS, organizations can ensure the availability and security of information whenever needed, utilizing features like version control.

LITERATURE REVIEW

The manual system of document management has been plagued by inefficiencies, highlighting the need for this research to advocate for a shift from analog to digital systems. Implementing electronic document management systems (DMS) using computers ensures the integrity of data, preventing unauthorized access. In the past, universities and agencies relied heavily on manual processes for tasks such as admission, payment of school fees, and other administrative functions. However, with the advent of technology, these processes have become more convenient and efficient. It is essential for university document management systems to adopt and improve upon new management systems. Integrated systems designed for university management are gaining popularity in the higher education sector. Their primary objective is to enhance services for the internal community, including professors, students, and staff.

These systems facilitate direct and rapid interaction between students and various university departments, promoting communication, file sharing, enrollment, project registration, and online discussion forums. This management approach enables simultaneous monitoring of student performance and relationships among university members, resulting in a faster and more streamlined flow of operational information. Ultimately, these systems ensure the availability and integrity of information and documents whenever needed, supporting efficient university operations. This management style enables simultaneous monitoring of student performance and university member relationships, resulting in a faster and more streamlined flow of operational information. It ensures the availability and integrity of information and documents whenever needed.

Implementing standardized procedures for managing electronic documents throughout their life cycle is crucial. A Document Management System (DMS) ensures document integrity, allowing for the identification and access of records over time, and verifying the authenticity of master copies. The primary objective of this research is to develop an electronic document management system for universities. The specific goals include:

1. Creating a system for managing electronic transfer of updated files within a university system.
2. Developing an electronic document management system that efficiently delivers files or records, saving time and maintaining workflow efficiency.

METHODOLOGY

This paper focuses on analyzing the development of university document management system. The study adopts questionnaire method in collecting data on university document management systems. The sample techniques apply focus judgment sampling and simple random sampling with a sample size of 180 respondents. The methods of data analysis will be on percentage and chi-square which is processed using the SPSS programmes.

Chi- Square test for independence

In tests for independence or contingency tests, we try to see whether or not two criteria of classifications are independent of each other. Contingency tables are tables with cells corresponding to cross- classifications of attributes or events. We also follow the usual procedure for tests of hypothesis; thus:

The two criteria of classifications are independent

They are not independent

The test statistic is

$$\chi^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{\left(o_{ij} - e_{ij}\right)^2}{e_i}$$

With degree of freedom
r = number of rows
c = number of columns

o_{ij} = The observed frequency of the ijth cell

e_{ij} = The expected frequency of the ijth cell

And $e_{ij} = \frac{R_i \times C_j}{N}$

Where R_i = row total of the ith row

And C_j = column total of the jth column

N = Grand total.

RESULTS AND DISCUSSION

TABLE 3.1: BIODATA

VARIABLES	FREQUENCY	PERCENTAGE
Gender		
Male	89	59.3
Female	61	40.7
AGE		
15 – 20	34	22.7
21 – 25	48	32.0
26 – 30	54	36.0
31 – 35	6	4.0
36 – 40	8	5.3
Marital Status		
Single	83	55.3
Married	67	44.7
Level of education		
Secondary school	45	30.0
B.sc/Hnd/Dip/Nce	76	50.7
Master's Degree	29	19.3

Table 3.1: The table above examines the bio-data of the respondents, which shows that 59.3% of the respondents were male while 40.7% were female. The age group indicates that most of the respondents are between the groups of 15 to 30 years. The table also shows that 55.3% of the respondents are single while 44.7% are married. The educational attainment shows that most of the respondents (50.7%) have the following qualifications, B.SC, HND, DIP, and NCE, 30.0% of the respondents have SSCE; furthermore, 19.3 have master's Degree.

TABLE 3.2: Demographics

VARIABLES	FREQUENCY	PERCENTAGE
What is your role in the university?		
Academic staff	120	66.7
Administrative staff	50	27.8
Student	10	5.6

What is your department/faculty?		
Computer science	80	44.4
Banking & finance	40	44.4
Public administration	40	44.4
Accountancy	20	11.1
How long have you been using the university's document management system?		
Less than 6 months		
6months to 1 years	10	5.6
1-2 years	30	16.7
More than 2 years	50	27.8
	90	50.0

Table 3.2: The table above examines the demography, which shows that 66.7% of the respondents were academic staff, while 5.6% were student. The table also shows that 44.4% of respondents were computer science, while 11.1% were accountancy. The table also indicates that 5.6% were less than six months, while 50.0% were more than 12 years.

Table 3.3: Document Management System Usage

VARIABLES	FREQUENCY	PERCENTAGE
How often do you use the document management system?		
Daily	10	5.6
weekly	30	16.7
monthly	60	33.3
yearly	80	44.4
What types of documents do you typically store/access in the system?(select all that apply)		
Academic records	70	38.9
Research papers	50	27.8
Administrative documents	40	22.2
Student records	20	11.1
How easy is it for you to find and access documents in the system?		
Very easy	10	5.6
Somewhat easy	40	22.2
Neutral	10	5.6
Somewhat difficult	70	38.9
Very difficult	50	27.8

Table 3.3: The table above examines the document management system usage, which shows that 5.6% of the respondents used document management system, while 44.4% used yearly. The table also indicates that 38.9%of respondents store academic records, while 11.1% store or access student's records. The table also shows that 5.6% of the respondents find and access documents very easy, while 27.8% find it very difficult to access documents.

TABLE 4.0: Impact of Document Management System

VARIABLES	FREQUENCY	PERCENTAGE
How has the document management system impacted your work productivity?		
Significantly improved	80	5.6
Somewhat improved	40	11.1
No impact	10	16.7
Somewhat decreased	30	22.2
Significantly decreased	20	44.4
How has the system affected the security and integrity of university documents?		
Significantly improved	70	38.9
Somewhat improved	40	22.2
No impact	15	8.3
Somewhat decreased	20	11.1
Significantly decreased	35	19.4
Have you experienced any benefits from using the document management system?		27.8
Improved collaboration	50	38.9
Enhanced document security	70	11.1
Increased productivity	20	22.2
Better organization	40	

Table 4.0: The table above examines the impact of document management system, which shows that 5.6% of the respondents were significantly improved, while 44.4% were significantly decreased. The table also indicates that 38.9% of the respondents agreed that significantly improved as affected the security and integrity of university documents, while 19.4% of the respondents were significantly decreased. The table also shows that 38.9% of the respondents agreed that enhanced document security were the benefits obtained using document management system, while 22.2% of the respondents agreed that better organization were the benefit.

TABLE 4.1: Challenges and Recommendations

VARIABLES	FREQUENCY	PERCENTAGE
What challenges, if any, have you faced while using the document management system?		
Yes	170	94.4
No	10	5.6
Do you have any recommendations for improving the document management system?		
Yes	160	88.9
No	20	11.1

Table 4.1: The table above examines the challenges and recommendation, which shows that 94.4% respondents agreed that there were challenges faced using the document management system,

while 5.6% disagreed. The table also shows that 88.9% of the respondents agreed that document management need to be adopted in university's system.

Research Hypotheses test

H_0: Documentation has no significant effect on university management system

H_1: Documentation has a significant effect in university management system

Test statistic: (SPSS Software version 23)

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.6460E3[a]	8	.000
Likelihood Ratio	1.368E3	8	.000
Linear-by-Linear Association	167.628	1	.000
N of Valid Cases	180		

a. 0 cells (.0%) have expected count less than 6. The minimum expected count is 60.63.

Using chi-square test statistic, it shows that p-value < 0.05. Therefore, we reject the null hypothesis and conclude that documentation has a significant effect in university management system.

CONCLUSION

This study examines the University Management System (UMS) using a questionnaire-based approach with a sample of 180 respondents. Judgment sampling and simple random sampling techniques were employed. The results, analyzed using percentages and Chi-Square analysis, reveal:

1. 56.7% of respondents agree that the UMS negatively impacts university records and activities.
2. 99.3% of respondents consider university document management (UMS) a major concern within the university system.
3. 65.3% of respondents do not believe that UMS techniques are effective in the university community.

REFERENCES

Santos, R, et al. (2019). Document management in universities: A systematic review. Journal of information science, 45(3), 257-271.

Kumar, p., et al. (2008). Cloud-based document management system for universities. International Journal of Advanced Research in computer sciences, 9(2), 234-241.

Li, M., et al. (2019). Block-chain-based document management system for universities. Journal of intelligent information systems, 56(2), 257-271.

Al-shammari, M. (2017). Design and implementation of a document management system for universities. Journal of Educational computing Research, 56(4), 419-435.

Anderson, c. G., & Maxwell, D.C. (2004). Starting a digitization centre . oxford: chandos publication.

Lyytinen, k. and Hirschheim, A.R.(1987) information systems failures: Asurvey and classification of the empirical literature. Oxford university press. Oxford surveys in information technology.

https://itsource code.com/fyp/online

https://Jetir.org/view? paperJETIR17