

Relationship Between Ease of Use, Content, and User Satisfaction on Enterprise Content Management System (ECM)

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ABSTRACT

Technology advancement accelerated the movement of papers to digital platforms, resulting in the establishment of Enterprise Content Management Systems (ECM). Organisations are embracing ECM to maintain records and increase company productivity. Consequently, this research aims to determine the relationship between ease of use, ECM system content, and user satisfaction. The population of this study consists of 130 respondents. The researcher used simple random sampling technique to determine the estimated of 97 individuals as a sample size of the respondents for this research. A set of questionnaires were adopted from previous studies and distributed using email and WhatsApp application. However, only 52 questionnaires were received from the respondents. Data analysis was performed using SmartPLS version 3. Based on the findings, there was a significant association between the content of the ECM system, ease of use, and user satisfaction. In conclusion, all the hypotheses were supported.

Keywords: Content; ease of use; user satisfaction, ECM system

1. Introduction

In recent years, most companies have increasingly replaced paper with electronic documents. With the rapid advancement of technology, people use electronic rather than printed paper to ease their work and efficiency of daily projects with accessible information. Structured information (often recorded in databases) and unstructured information enable a company's data, which are stored in file systems, content management systems, email servers, and others, to be more consistent. Most industries' information is unstructured [1-3].

In today's digitalisation of technology, the continuous flow of digital information offers ever-increasing software usage in businesses. Software usage to increase an organisation's productivity is becoming relevant in the era of technology. Therefore, Enterprise Content Management System (ECM) is one of the systems used in an organisation to enhance the capability and efficiency of the working environment. According to Vom Brocke *et al.*, [4], scholars unequivocally agree that ECM is more than a collection of technology; it is also an organisational paradigm that handles complex business concerns. Consequently, incorporating ECM systems into enterprises may involve changes to production strategy, business procedures, and work habits.

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Most documents were found scattered, dispersed, and abandoned in numerous locations. Due to the absence of control mechanisms, a different custodian will subsequently encounter an integrity problem with identical documents. According to OConnor [5], technology such as document management software provides rapid, adaptable, and long-lasting solutions to obstacles that would otherwise impede their expansion attempts. However, users had to search numerous indexes to locate the required content. The essential information is dispersed throughout the index. Therefore, using this method to access the index will be time-consuming.

According to Kiran and Singh [6], customer satisfaction and service quality are highly linked. Thus, Thomassen *et al.*, [7] also identified that the satisfaction model, word-of-mouth, personal needs, previous experiences, and marketing and public relations determine customers' wants and expectations. In this research, the ECM system influencing user satisfaction is the system's information content. Various scholars have defined the term content, but it refers to something contained within an entity [8]. In other words, content refers to the purported message of the record [9]. Effective content should address user's needs [10]. The system perspective focuses on the multiple systems where information is stored, the systems made available to users, and the granularity of content used for processing and storage. Good content management seeks to satisfy the needs of the user. Thus, effective content from the user's perspective contains material that is acceptable, fits user expectations, it is helpful and clear [10]. The technology essentially enables the user to monitor, edit, and update content [11] because the outcome fits their needs, provides sufficient information, provides the right amount of data, and is suited to their specifications.

One of the factors to examine while evaluating the system's significance is its usability. According to Teo [12], ease of use is the degree to which the user expects the system to be user-friendly. The ECM system is a digital collaboration solution designed to handle, store, and organise corporate documents in real time, expediting business processes and enhancing day-to-day operations for businesses [13]. When employing ECM, the system's interface, which are intended to be basic, contain only explicit terms. If something in the user interface is unclear, then, the language will be altered accordingly [14]. The system's ease of use is measured by how straightforward it is to get or extract data [15]. This is crucial because perceived ease of use substantially affects system usage, mainly through its influence on usefulness and enjoyment. Users exert less effort to use a system if they perceive it to be user-friendly [16].

Furthermore, Ilias *et al.*, [17] and Abd Razak *et al.*, [18] conducted a study on system usability and discovered that there was a significant influence on user satisfaction of Computerized Accounting Systems. The argument was that the Computerized Accounting System is easy to use and enables users to provide reports on time, even if they are first-time users. The user most likely felt that the Computerized Accounting System was simple to use and grasp in a short time. In addition to the usefulness of content, relevant information, accessibility, and interaction, they determined that ease of use is the most important service quality information. They argued that it is vital for users to be able to access the information they seek rapidly. Users tend to be more interested in documentation pieces that increase their knowledge and grasp of the system and make it simpler to use. Consequently, it is possible to infer that simplicity of use is a significant factor in the success of an information system.

As a conclusion, Enterprise Content Management system (ECM) is a mechanism for managing content systematically across its entire lifecycle. It enables unstructured data to be stored securely and made available to authorised users such as Word documents, PDF files, emails, scanned images, and drawings. Therefore, the researcher hypothesizes the following:

H1: There is significant positive relationship between content of ECM system and user satisfaction.

H2: There is significant positive relationship between ease of use of ECM system and user satisfaction.

2. Methodology

This paper aims to identify the relationship between the content of the ECM system, ease of use and user satisfaction with the ECM system. The population of this study consists of 130 employees from a private company in Terengganu. The sample size was estimated 97 employees based on the sample size determination. The sample was selected using simple random sampling technique. A set of questionnaires were adopted from previous studies and were distributed using email and WhatsApp applications. The questionnaires were given through Google Forms, and the link to Google Forms was distributed to 97 respondents from different job levels and functions within the company. However, only 52 questionnaires were received from respondents. The respondents were asked to rate the content of ECM and user satisfaction using a five-point scale, ranging from “1-never”, “2-seldom”, “3-some time”, “4-most of the time”, and “5-always”. The researcher used Statistical Package for Social Science (SPSS) Version 26 and SMART-PLS Version 3 to analyse the data.

3. Results

3.1 Demographic Profile

Demographic profile results were analysed using the Statistical Package for Social Science (SPSS) Version 26. Table 1 summarises the respondent’s demographic profile. There are 69.2% (n=36) male employees and 30.8% (n=16) female employees. A total of 52 respondents are categorised into five groups according to their age selection. The age group of 36-40 years old are the highest percentage of 40.4% (n=21), followed by 31-35 years at 30.8% (n=16), above 40 years old at 15.4% (n=8), 26-30 years were 9.6% (n=5), and age of 21-25 years old at 3.8% (n=2). From the table, most of the respondents (61.5%) (n=32) have a working experience of 11 to 15 years. Most of the respondents used the ECM system, with 98.1% of respondents (n=51), and a majority of the respondents used the ECM system once a day.

Table 1
 Respondent’s Demographic Profile

No.	Demographic	Frequency	Percentage (%)
1	Gender		
	Male	36	69.2
	Female	16	30.8
2	Age (year)		
	21 - 25	2	3.8
	26 – 30	5	9.6
	31 - 35	16	30.8
	36 - 40	21	40.4
	Above 40	8	15.4
3	Duration of service (year)		
	1 - 5	3	5.8
	6 - 10	11	21.2
	11 - 15	32	61.5
	16 - 20	5	9.6
	More than 21	1	1.9
4	Designation		

	Technician	16	30.8
	Supervisor/Lead Technician	2	3.8
	Executive/Engineer	27	51.9
	Manager	7	13.5
5	Frequent on Using ECM		
	Once a day	24	46.2
	2 to 3 Times a day	11	21.2
	Once a week	13	25
	2 to 3 times a week	2	3.8
	Once a month	2	3.8

3.2 Model Testing

This study aims to identify the relationship between the content of the ECM system, ease of use and user satisfaction among employees in a private company in Terengganu. The model was assessed using the PLS-SEM approach version 3. According to Hair *et al.*, [20], a measurement model measures the relationship between the constructs and the corresponding indicators to see whether the path model is reliable and valid.

Factor loads, average variances (AVE), and composite reliability (CR) (table 2) were measured in this study. These measurements support the analysis of convergent validity and reliability. Convergent validity indicates how much the scale in question coincides with other criteria that measure the same structure. Factor loads were used to indicate the weight and correlation value of the factor. The measurement model used in this study comprises three latent constructs: content, ease of use and satisfaction. The table below presents the output assessment of the reliability and validity of the data. According to [21], the AVE value should be greater than 0.5, and the CR value should be greater than the AVE value ($CR > AVE$; $AVE > 0.5$). However, AVE values less than 0.5 are acceptable if other reliability criteria for convergent validity are encountered [22-23]. Although the AVE value of satisfaction and content in the table is less than 0.5, it can be accepted. The result specifies that ease of use contribute to high CR value (higher than AVE value) which is 0.814. In this study, one item was dropped (C4) due to low loadings (0.308) from their respective constructs to achieve the acceptable level of convergent validity.

Table 2
 Convergence validity results (Factor loads, CR and AVE value)

Constructs	Items	Loadings	CR	AVE
Content	C1	0.737	0.789	0.483
	C2	0.626		
	C3	0.697		
	C5	0.716		
Ease of Use	ETU1	0.822	0.814	0.594
	ETU2	0.742		
	ETU3	0.746		
Satisfaction	S1	0.672	0.776	0.466
	S2	0.57		
	S3	0.737		
	S4	0.739		

Table 3
 Discriminant Validity

Constructs	Content	Ease of Use	Satisfaction
Content	0.695		
Ease of Use	0.756	0.77	
Satisfaction	0.639	0.633	0.683

In this research, the discriminant validity of the latent variables in the model was determined using the Fornell-Larcker criterion, and all the latent constructs were below 0.90 (table 3). Therefore, discriminant validity is established in the measurement model.

3.3 Structural Model Test

Bootstrapping procedure is applied to generate results for each path relationship in the model, as shown in table 4. Two path relationships are found to be significant (Content -> Satisfaction, $\beta = 0.374$, $p \leq 0.05$; Ease of Use -> Satisfaction, $\beta = 0.351$, $p \leq 0.05$) at a 95% confidence level. As a result, the two hypotheses in this study are supported.

Table 4
 Path coefficient

	Beta	Standard Deviation (STDEV)	T Value	P Values	Decision
Content -> Satisfaction	0.374	0.178	2.101	0.018	Supported
Ease of Use -> Satisfaction	0.351	0.163	2.153	0.016	Supported

4. Conclusion

The analysis of this research presented a positive relationship between content, ease of use and satisfaction. Thus, the hypotheses were supported. The result indicates that users are satisfied with the content and ease of use of the ECM system. The user might be provided with a basic and easy-to-use interface to overcome problems in the ECM system. It is possible to decrease the number of transactions needed to collect essential information and enhance system's usability. Furthermore, one of the most important success criteria of a system is its simplicity of use, quickness and user-friendly. As a result, the ECM system's usage depends on the system's simplicity of use. This finding is consistent with the research done by Thong et al., [24] and Yusliza *et al.*, [26] on the perceived ease of use of the system. Therefore, to make the systems known and used by people, developers should focus on their interface of usability and ease of use [25]. In addition, Yusliza *et al.*, [26] indicated that users prefer to accomplish a task on a system that needs the least effort and time to operate. Thus, employees are dissatisfied with ECM system if it does not ensure the accuracy of contextual and representational of information [26]. Furthermore, employees need management's help to improve system utilisation and enable system users to utilise the system effectively and adapt it to their jobs. The management's participation has accelerated the process of user adaptation to the system. As a result, users will likely utilise the ECM system more effectively and efficiently in the future.

Research discovered by Haug [14] found that ECM systems, among other aspects, provide more efficient document retrieval, increased project process management, simpler document generation via the use of templates, more document consistency, and fewer occurrences of information loss. Furthermore, the case demonstrates how ECM may help strengthen relationships with suppliers.

Although ECM solutions seem to be primarily aimed for big corporations, the case study demonstrated that SMEs may also gain significant advantages from such technology.

This study contributes to the existing studies on the ease of use and content of ECM system by focusing on a private company. However, further study on other construct should be extended. In addition, there are various limitations to this research. First, the study was limited to one private company in Terengganu because the company is using the ECM system to enhance the productivity of their company and time is needed to search other company that used the same system. Therefore, the study should be expanded to include other companies and regions that use the same system and researcher may also examine the system's differences or similarities. Thus, the data collection techniques such as in-depth interviews with end users of ECM system can be considered to get a thorough grasp of how respondents use the system because most workers are engaging in their day-to-day tasks. Moreover, the survey responses did not reflect the entire population of respondents or their knowledge of using the system.

Based on the research results, the organisation can make changes to the system and evaluate the information to enhance the usability of the system and improve the usage of the system. For additional improvement of the system, it is suggested that the organisation upgrade the system to be more convenient to users and to support the vision of digitalising the work culture in an organisation.

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