Digital Transformation in the Accounting Field from the Perspective of Literature Review and Factor Analysis

Review of Integrative Business & Economics Research

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ABSTRACT

Accounting has recently experienced dynamic changes both in terms of knowledge, profession, and other aspects. In the current era of digital transformation, accounting science is developing rapidly and is required to continue to adapt. The scope of research related to digital accounting can be expanded to evaluate and develop digital accounting, both for business and non-business entities. This research aims to determine the extent of the development of publications related to digital accounting and to determine the determinant factors that encourage the formation of digital accounting topics. This research used a quantitative descriptive method with a bibliometric approach using the VOSviewer tool, and then continued with a quantitative approach using exploratory factor analysis (EFA). Secondary data published in Scopus-indexed scientific journals were used, and primary data were obtained from the results of questionnaires distributed to 100 respondents. The results of the research indicated that subjects related to digital accounting were divided into 3 clusters consisting of 30 factors. From these results, exploratory factor analysis (EFA) was then carried out to produce 8 factors that emerged from the reduction process of 30 factors related to digital accounting. This research reveals emerging trends through analysis of keywords and subjects frequently used by researchers. It also contributes to the progress of science and technology. For future research, this research can be used as a reference, evaluation, and development of knowledge on previously studied research topics.

Keywords: Digital Accounting, Bibliometric, Exploratory Factor Analysis.

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1. INTRODUCTION

Currently, accounting science must possess the ability to adapt to the developments in digital technology. Digitalization drives the speed and availability of data, makes data easier to store, and offers the capacity to combine digital forms with supporting documents (Bhimani and Willcocks, 2014). Digital technology offers a complex and flexible method that is important in human life. The importance of digital technology encourages all fields of science to make a transition, one of which is the field of accounting. In practice, accounting involves the use of technology to perform various accounting tasks (Maiti, Kotliarov, and Lipatnikov, 2021).

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Digitalization of the preparation of financial reports can simplify and speed up the decision-making process in designing strategies and predicting conditions that may occur in the future. A digital accounting system helps an entity record transactions which enables more efficient and effective data processing by referring to the creation, representation, and transfer of financial information in electronic format (Phornlaphatrachakorn, and Kalasindhu, 2021). The process of digitizing the accounting information system affects the role of accountants in data operations, causing a shift in the role of an accountant who previously prepared financial reports manually, switching to using digital technology in preparing accounting information (Yanti and Pratiwi, 2022). A sophisticated accounting system enables process automation, fast data processing, and accurate reporting.

Researchers have been inspired to carry out mapping on digital accounting using bibliometric analysis methods and measuring factors that support digital accounting based on accounting students' perceptions. This research built upon previous literature. The first research conducted by Ardianto and Anridho (2018) found that the topical research field of accounting is dominated by accounting information systems. This trend is in line with the interests of publishers, authors, and institutions, most of which are based in developed countries. Meanwhile, the second research was conducted by Akhtar et al. (2023) which focused on big data and accounting. The research results indicated that digital economic issues and social media analysis have shifted from developed to developing countries.

This research aims to map digital accounting subjects. This research is also intended to reduce these subjects into several factors using exploratory factor analysis (EFA).

2. LITERATURE REVIEW

2.1. Digital

Digitalization is the result of evolutionary developments in technology, microelectronics, and information methods (Medennikov, 2021). Digitalization is redefining accountability relationships with the increasing use of non-transactional data that blurs the boundaries of accounting (Agostino, Saliterer, and Steccolini, 2022). In the digital environment, the type of data produced has changed gradually from traditional to textual and visual data (Belkahla Driss, Mellouli, and Trabelsi, 2019). These changes are anticipated to produce cost, time, and space effectiveness and efficiency in managing accounting information (Begkos, Antonopoulou, and Ronzani, 2023). Apart from that, the development of digital technology brings changes to existing business models as well as new businesses, the introduction of new products and services, and increased efficiency of business processes, which ultimately makes businesses more competitive (Hasbolah, 2021). With technological developments, many service providers rely on digital data to process, reveal, and improve financial transaction data (Cenamor, Rönnberg Sjödin, and Parida, 2017). The increasing availability of digital data on accounting information has the potential to organize, shape, and influence decision-making (Ritter and Pedersen, 2020).

2.2. Accounting

According to Kerr (1983), accounting is one of the measurement components of a control system for controlling financial transactions in an entity or business. Accounting is a tool used to manage financial information to help make the right decisions (Rufino, Payabyab and Lim, 2018). The accounting system includes the process of recording, classifying, processing, and presenting data from transaction activities and business events into accounting books based on predetermined financial report quality standards, which will later be used for business unit consolidation and reporting (Beerbaum Dr. et al., 2021). The

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International Accounting Standards (IFRS) serve as a comprehensive framework for preparing financial reports and outline the presentation of quality financial reports (Barth, Landsman, and Lang, 2008).

Based on the accounting concept, the financial performance of an entity can be measured and reported using 5 main elements: assets, liabilities, equity, income, and expenses (Thammatucharee, 2021). According to Quiggin (2014), accounting has experienced dynamic changes both in terms of knowledge and profession. Accounting is recognized as a practice or technique carried out to provide information to interested external and internal stakeholders of an organization (Vidwans and De Silva, 2023). Accounting plays a key role in the use of technology to safeguard external users of financial information and to build the company's image of modernity by providing information; therefore, it can build an identity in front of all other economic agents in today's technological world (Bonsón and Escobar, 2006).

3. METHOD

The research was carried out using two approaches: a descriptive approach using Vosviewer tools followed by a quantitative approach using exploratory factor analysis (EFA). Bibliometrics is a method of analyzing bibliographic data to determine digital accounting over time by using literature databases such as articles, journals, and others. (Xie et al., 2020). Bibliometric analysis is frequently used by researchers, such as to uncover emerging trends in article and journal performance, collaboration patterns, research consistency, and to explore the intellectual structure of a particular domain in the extant literature (Donthu et al., 2021). This stage aims to build and describe a bibliometric network of topics that are widely discussed and closely related to digital accounting (Sulardja, 2021).

In this study, the bibliometric analysis used data extracted from articles published from 2013 to 2023, specifically focusing on those with the keyword “Digital Accounting”. The data retrieved from the Scopus database was stored in the form of comma-separated values (CSV) to make it easier to analyze, process, and depict the data using the VOSviewer tool. The aim was to obtain the results of the analysis of the growth of scientific publications and topics related to digital accounting from year to year based on subject, institution, and country of publication. The final step was a qualitative descriptive analysis of network visualization and data processing outcomes in order to map the factors extensively studied related to digital accounting.

The second stage was determining the driving factors behind digital accounting. Exploratory factor analysis (EFA) is one of a series of multivariate statistical methods that seek to identify the smallest number of hypothetical constructs, also known as factors, dimensions, latent variables, synthetic variables, or internal attributes, that can explain specifically observed covariance among a set of variables measured (Watkins, 2018). In this stage, questionnaires were distributed to active students of accounting study programs in Garut Regency. In this study, 100 participants were selected as research objects. Students opted for accounting study programs because of their access to the latest knowledge and understanding of accounting technology and developments, and they were often involved in learning about these topics. Meanwhile, the selection of 100 respondents was made in accordance with Hair J et al. (2014) who suggested that the sample size of a population that cannot be calculated for business surveys can be around 100 respondents. Sampling was carried out based on incidental sampling technique. According to Margono (2005), in this technique, sampling is not determined in advance but is carried out by chance with people who are accidentally met and deemed suitable as data sources. The questionnaire contained

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closed questions about the driving factors of digital accounting using a 5 level Likert scale, ranging from "Strongly disagree" (1) to "Strongly agree" (5). EFA was carried out by grouping variables based on the correlation values, resulting in the creation of new variables with a reduced number of variables. In other words, this analysis technique reduced the number of variables. The process of carrying out EFA consisted of four steps. The first was testing the suitability of the data through correlation matrix values, ensuring measure of sampling adequacy (MSA) and Keisher-Meyers-Oklin (KMO) values. Second, factors were extracted by looking at the eigenvalue criteria. Next, factors were rotated using the varimax technique, and finally, the factors formed were interpreted by taking into account the loading factor values and communality values.

4. RESULTS

4.1 Trend in Scientific Publications on Digital Accounting by Publication Year and Subject

Table 1 illustrates the growth of scientific publications on digital accounting using the Scopus indexed literature database from 2013 to 2023.

Table 1. Distribution of Scientific Publication Trends and Subjects of Scientific Publications on Digital Accounting

Year	Jumlah	Subject	Jumlah	(%)
2023	384	Engineering	419	11.3%
2022	353	Computer Science	377	10.2%
2021	290	Medicine	349	9.4%
2020	247	Environmental Science	343	9.3%
2019	167	Earth and Planetary Sciences	295	8.0%
2018	128	Social Sciences	257	6.9%
2017	92	Business, Management and Accounting	207	5.6%
2016	83	Energy	202	5.5%
2015	64	Physics and Astronomy	201	5.4%
2014	56	Agricultural and Biological Sciences	150	4.1%
2013	53	Economics, Econometrics and Finance	145	3,9%
Total	1917			

Table 1 presents the distribution pattern of research results on digital accounting, with a total of 1,917 documents (last taken on January 20, 2024). The surge in digital accounting publications occurred due to developments in digital technology, which revolutionized the way companies recorded and analyzed financial transactions. Consequently, extensive research was carried out to examine the changes and their subsequent impacts.

Based on the examination of subjects indexed by Scopus related to digital accounting, engineering was found to be the primary subject often associated with digital accounting. The reason might be because technological developments have changed the way businesses operate, including in the accounting field. Engineering helps create technology-based solutions that support digital accounting processes, such as the development of accounting software, data management systems, and more sophisticated financial data analysis. Thus,

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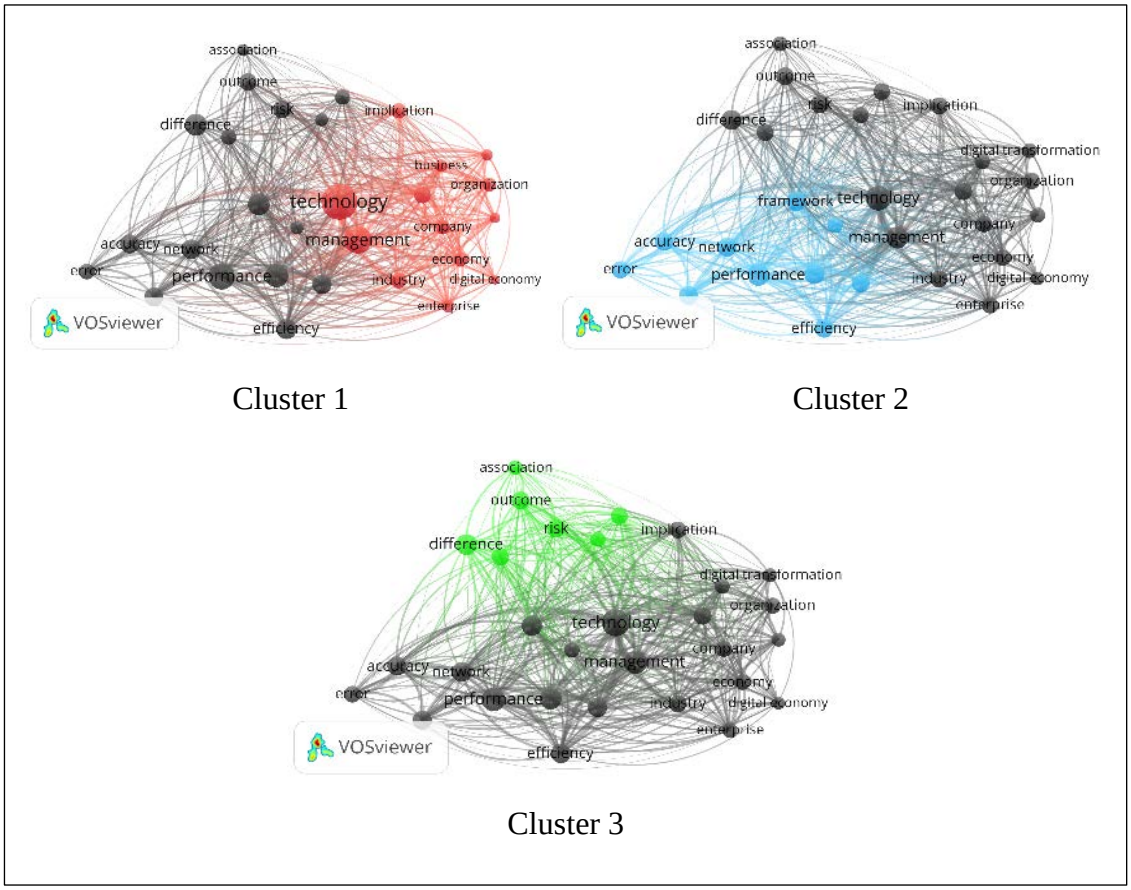
skills in technology engineering are invaluable in understanding and implementing digital accounting solutions.

4.2 Network Visualization Analysis Based on Co-occurrence

Figure 1 displays the results of data processing in the VOSviewer tool, which shows the clustering of keywords discussed in research related to digital accounting.



Picture 1. Network Visualization Based Co-occurrence years 2013-2023
Source: VOSviewer (2024)

The analysis of secondary data regarding digital accounting from 2013 to 2023 in VOSviewer showed that a term appeared 50 times, while the publication development map exhibited 3 clusters with 30 items. According to Shah et al. (2020) in keyword analysis, VOSviewer uses text mining techniques to analyze the content of titles, keywords, and abstracts to produce groups of closely related items, which are denoted by the same cluster color. Cluster 1 produced 13 items and consisted of keywords that were often associated with Business, Company, Digital Economy, Digital Technology, Digital Transformation, Digitalization, Economy, Enterprise, Implication, Industry, Management, Organization, and Technology. Cluster 2 produced 10 items and consisted of keywords that frequently appeared. They are Accuracy, Algorithm, Efficiency, Error, Framework, Implementation, Integration, Network, Performance, and Problem. Finally, cluster 3 produced 7 items with the following keywords: Association, Difference, Experience, Measure, Outcome, Person, and Risk.

4.3 Exploratory Factor Analysis (EFA) related to Digital Accounting

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Based on the results of the bibliometric analysis above, 30 keywords often associated with digital accounting emerged. These keywords were then analyzed using exploratory factor analysis (EFA) to reduce and determine the relationship between digital accounting and the strongest factors/keywords. In addition, this analysis was carried out to explore the theoretical structure underlying the phenomena that occurred based on accounting students' perceptions of the keywords that emerged and their relationship to digital accounting. Thus, the tabulation of the results of the bibliometric analysis shows several keywords used as factors that encourage digital accounting, which are as follow:

Table 2. Tabulation and Categorization of Bibliometric Analysis Results

Kode	Factors Driving Digital Accounting
P1	Digital accounting is a factor that guarantees business success.
P2	Companies are required to use digital accounting to accelerate the speed of the accounting recording process.
P3	In the digital economic era, companies are required to adopt digital accounting for preparing financial reports.
P4	Digital technology is the only factor that supports the progress of automation systems in accounting.
P5	All small and medium-scale businesses are required to use digital accounting in financial transaction activities in the era of digital transformation.
P6	I believe that the implementation of digitization in accounting can ensure the creation of financial reports that are error-free in terms of recording.
P7	The use of accounting automation systems can foster economic progress.
P8	The accounting automation system enhances the likelihood of a company's chances of success in producing a product.
P9	If you use a digital accounting system, recording financial reports will be far from fraudulent.
P10	The use of digital accounting to manage financial transactions ensures the accuracy of an industry’s financial reports.
P11	The company’s management will undoubtedly achieve success by incorporating an accounting automation system in its transaction processes.
P12	All organizations are required to use digital accounting in their transaction processes.
P13	Technology is a factor that drives the progress of digital accounting in all business lines.
P14	An automation system in the accounting process can guarantee more accurate financial reports.
P15	Digital accounting algorithms can eliminate errors that occur due to human factors.
P16	Financial reports can be prepared efficiently if you use an accounting automation system.
P17	Calculation errors due to human error can be eliminated with digital accounting.
P18	The current accounting framework must be based on developments in digital technology.
P19	Implementing digital accounting can guarantee the success of a company.
P20	The implementation of accounting automation system ensures good company integrity.
P21	The larger the work network, the greater the need for digital accounting.
P22	Companies that implement digital accounting show better performance than companies that rely on manual accounting processes.
P23	Financial problems can be avoided if you use an accounting automation system.
P24	Accounting associations can enhance understanding of digital accounting among accountants.

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P25	Financial reports that are prepared digitally have different quality from those that are manually created.
P26	An accountant's expertise in digital accounting applications greatly influences the quality of the financial data produced.
P27	Measurements carried out by digital accounting can provide more accurate results than those carried out manually.
P28	The outcomes arising from digital accounting are positive for business.
P29	The quality of financial reports depends on the accountant's ability to automate accounting data.
P30	The level of risk associated with manual accounting process is lower than digital accounting.

In this stage, we carried out an analysis using data from bibliometric results. The tabulation and categorization results were then transformed into a closed questionnaire using a Likert scale. The questionnaires were distributed to 100 active students of the accounting study programs who were selected as research objects. This research used IBM SPSS Statistics version 25 software. Data processing was carried out several times by removing factors that had an anti-image correlation value < 0.500, namely efficiency, network, person, and industry. The results of the data processing without including these factors showed that the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO-MSA) value was 0.792 with Bartlett's test of sphericity significance value of 0.000. If the KMO-MSA figure is above 0.5 and the significance value is below 0.05, the research variables and samples can be analyzed further.

The next process was the core process of factor analysis, namely extracting (factoring) a set of variables to form one or several new factors. The new factor formed must have an eigenvalue ≥1. In this research, 8 new factors were formed. Initially, there were 26 original variables included in the factor analysis. After the factoring process was carried out, 8 new factors were formed, which were components 1 to 8. This shows that the grouping of several original variables is based on the similarity of the characteristics of these variables.

Table 3. Total Variance Exolained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.637	35.457	35.457	3.256	10.853	10.853
2	2.626	8.755	44.212	3.145	10.482	21.336
3	1.721	5.735	49.947	2.934	9.780	31.116
4	1.497	4.989	54.936	2.824	9.412	40.528
5	1.389	4.631	59.567	2.632	8.773	49.301
6	1.232	4.105	63.672	2.294	7.647	56.948
7	1.076	3.586	67.258	2.254	7.514	64.462
8	1.052	3.508	70.766	1.891	6.304	70.766
9	0.956	3.186	73.952			
...						
30	0.069	0.229	100.000			

Extraction Method: Principal Component Analysis
Source: Data Processing (2024)

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The next step was to enter the original variables into the factors formed based on the component matrix table. Following after this was the rotation process to form the Rotated Component Matrix. The rotation process aims to clarify the position of a variable in a factor. Overall, the results of the factor analysis can be seen in the following rotated component matrix table.

Tabel 4. Rotated Companent Matrix

Component	Comunalities	Factor Loadings								Name
		1	2	3	4	5	6	7	8	
Management	0.755	0.803	0.143	0.185	0.158	-0.010	0.111	0.049	0.108	Management business
Business	0.723	0.755	0.102	0.138	0.293	0.046	-0.156	0.180	0.104	
Industry	0.745	0.614	0.412	-0.025	0.186	0.380	0.189	-0.059	-0.101	
Digitalization	0.708	0.571	0.266	-0.015	-0.153	0.136	0.246	0.105	0.238	
Risk	0.664	0.157	0.783	-0.109	-0.015	0.103	-0.007	0.181	0.132	Business Risk
Integration	0.567	0.278	0.668	0.051	0.348	0.159	0.289	0.235	0.080	
Accuracy	0.611	0.231	0.596	0.425	0.179	0.001	0.370	0.013	0.012	
Implementation	0.759	0.183	0.560	0.245	0.325	0.185	-0.019	-0.102	0.359	
Outcome	0.735	0.444	0.495	0.433	0.111	0.072	0.098	0.161	0.157	
Assosiation	0.775	0.019	-0.179	0.747	0.096	0.223	0.010	0.080	0.210	Accountants Association
Algorithm	0.752	0.342	0.250	0.674	0.070	0.061	0.310	0.066	0.197	
Person	0.726	0.155	0.244	0.483	0.352	0.195	0.221	0.202	-0.258	
Economy	0.657	0.357	0.184	0.423	0.042	0.314	0.128	0.389	0.053	
Digital transformation	0.758	0.247	0.388	0.407	-0.086	0.204	0.358	-0.113	0.310	
Company	0.781	0.173	0.080	0.029	0.796	0.123	0.175	0.075	-0.040	Digitalization
Digital economy	0.691	0.185	0.122	0.176	0.791	0.124	-0.043	0.147	-0.017	
Digital Technology	0.775	-0.033	0.096	0.050	0.600	0.263	0.411	0.172	0.260	
Implication	0.742	0.488	0.007	-0.069	0.031	0.693	0.010	0.065	0.083	Organizational Performance
Performance	0.687	0.033	0.132	0.272	0.158	0.640	0.015	0.059	0.275	
Technology	0.819	0.036	0.181	0.271	0.313	0.601	0.185	0.233	-0.045	
Network	0.630	-0.135	0.383	0.416	0.186	0.501	0.017	0.064	-0.039	
Difference	0.606	0.091	-0.024	0.199	0.297	0.454	0.288	0.438	0.081	
Organization	0.857	0.252	0.310	0.166	0.140	0.436	0.408	-0.165	0.368	
Measure	0.700	0.091	0.110	0.187	0.137	0.119	0.742	0.231	-0.149	Company Size
Framework	0.624	0.100	0.091	0.062	0.187	-0.039	0.610	0.514	0.217	
Error	0.616	0.175	0.093	-0.004	0.078	0.042	0.126	0.843	0.031	Cost efficiency
Effeciency	0.714	0.026	0.287	0.397	0.372	0.210	0.066	0.513	-0.008	
Experiense	0.708	-0.123	0.068	0.333	0.301	0.265	0.343	0.452	0.050	

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Problem	0.635	0.139	0.347	0.096	-0.117	0.142	-0.124	0.153	0.797	Side Effects of Digitalization
Enterprise	0.710	0.377	-0.035	0.320	0.221	0.104	0.283	0.042	0.609	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 22 iterations.
Source: Data Processing (2024)

As shown in Table 4, the rotated component matrix formed 8 factors. The first factor was business management and displayed the largest eigenvalues of 10.637. This factor had a data diversity value of 10.853%, and the largest factor loading value was management of 0.803. This shows that management is the strongest variable in business management factors. The second factor was business risk, exhibiting eigenvalues of 2.626. Business risk factors consisted of five variables: risk, integration, accuracy, implementation, and outcome. This factor had a data diversity value of 10.482%, and the largest factor loading value was risk with 0.783. This indicates that the risk variable is the strongest factor that influences business sustainability.

The third factor was the accounting association. This factor formed digital accounting with eigenvalues of 1.721. The accountant association factor consisted of five factors: association, algorithm, person, economy, and digital transformation. The association variable was found to be the strongest factor that formed accountant associations. The fourth factor formed was digitalization. This factor had eigenvalues of 1.497. The digitalization factor consisted of three factors, which were company, digital economy, and digital technology. The digitalization factor was a factor formed by the diversity of data that could be explained at 9.412%, and the loading factor value, namely company, was 0.796. The fifth factor was organizational performance with eigenvalues of 1.389. This factor comprised six factors: implication, performance, technology, network, difference, and organization. The organizational performance factor was the 5th strongest factor formed with a data diversity value that could be explained at 8.773%. Implication showed the largest loading factor value at 0.693. The implication factor was the strongest factor in the application of accounting. A company needs to implement digital accounting to improve organizational performance.

The sixth factor formed was company size with eigenvalues of 1.232. This factor consisted of two factors, measure and framework. The company size factor was formed with a data diversity value that could be explained at 7.647, and measure exhibited the largest loading factor value at 0.742. The measure factor was the strongest factor in the sixth factor that influenced company size. The seventh factor that was formed was cost efficiency with eigenvalues of 1.076. This factor consisted of 3 factors: error, efficiency, and experience. The cost efficiency factor had an explainable data diversity value of 7.514%, and the largest loading factor value was an error of 0.843. The error factor was one of the strongest factors that influenced the cost efficiency factor. The last factor was the side effects of digitalization which showed eigenvalues of 1.052. This factor comprised two factors: problem and enterprise. The side effect factor of digitalization was formed by showing a data diversity value of 6.304%, with the largest loading factor value, namely problem, of 0.797. This shows that problem is a variable that influences the side effects of digitalization, especially on the accounting system.

The reduction results above indicate that the factors that encouraged digital accounting were digital business, business risk, accounting associations, digitalization, organizational performance, company size, cost efficiency, and side effects of digitalization.

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5. DISCUSSION

The results of the data processing using the bibliometric analysis method revealed a significant research growth from 2013 to 2023. This is contrary to the research results of Ardianto and Anridho (2018), which found that research focusing on accounting information systems and the use of computer science from 2001 to 2015 saw a continued decline in analytical research and modeling. This shows variations in research outcomes when compared to previous studies.

In the 2013-2023 period, research carried out was based on the subject of engineering with a total of 419 publications. The focus of their discussion was on the application of science and technology to solve problems resulting from transitions in various fields of science. The subject of engineering is widely involved in digital accounting because it often involves the use of complex and structured analytical techniques in analyzing financial data. Academics who review big data and current technological developments, especially accountants, believe that developments in information technology and big data can provide accountants with the ability to carry out complex data analysis and predictions by continuing activities based on information stored and filtered by big data (Sumadi, Putra, and Firmansyah, 2022).

This research produced 3 clusters with 30 keywords. The results of the data processing showed a relationship between keywords and research context widely studied based on each cluster. Accountants' expertise requires them to be in a good position to contribute to the evaluation, implementation, and maintenance of the technologies discussed as well as the assessment of new/impacted business processes to manage risks (Moll and Yigitbasioglu, 2019). Measuring data on the application of digital technology in financial reports is influenced by the level of accuracy and better integration between financial systems and various departments within the company. Minimizing the potential for errors due to inconsistent use of data can be done by analyzing financial data in depth, and improving data security and regulatory compliance (Sutisnawinata, 2023). Technological advances can provide opportunities such as the ease of processing data quickly and accurately (Quinn and Murphy, 2023). In contrast, research conducted by Ardianto and Anridho (2018) shows that from 2001 to 2015 the International Journal of Digital Accounting Research (IJDAR) classified topical areas into 6 categories: accounting information systems (AIS), auditing, finance, managerial, taxation, and others. This research added 3 mixed areas, which are a combination of AIS and auditing, AIS and finance, and AIS and managerial.

The data analysis showed that the first factor that drove digital accounting was companies' business management with the dimensions measured including management, business, industry, and digitalization. The success of business management can be evaluated by analyzing today's industrial developments by implementing digital technology (Kraus et al., 2022). The second factor that drove digital accounting was business risk. The dimensions formed in this research included risk, integration, accuracy, implementation, and outcome. Implementing a digital accounting information system may help interpret financial data quickly, and accurately, and can reduce the risks stemming from manual recording. In the accounting process, data accuracy is very important because it affects the credibility of the company's financial reports (Alewine, Allport, and Shen, 2016). The third factor driving digital accounting was the accounting association. The results of this research showed that this factor had several dimensions: association, algorithm, person (accountant), economy, and digital transformation. The accounting association encourages the implementation of digital accounting by facilitating access to resources on algorithms and digital transformation in accounting within the current economic conditions. Companies need to undergo a

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transformation through the integration of technology, resources, and management concepts in order to adapt to digital technology (Lantip, 2023).

The research results showed that the fourth factor was business digitalization with three dimensions: business, management, and outcomes. Digital accounting allows companies to develop new business models with better management strategies and outcomes (Giang and Tam, 2023). The fifth factor that drove digital accounting was organizational performance. This factor consisted of the dimensions of implication, performance, technology, network, difference, and organization. The technological implications of accounting systems showed different results from manual accounting. Technology plays a crucial role in accounting by making financial data processing easier, and increasing data speed and efficiency (Zhang, Ye, and Jia, 2022).

The sixth factor driving digital accounting was company size. The dimensions formed by this factor were measure and framework. Company size refers to the size of a company and the value of the company. Company size and framework can influence investors' judgments in making investment decisions (Suryana and Rahayu, 2018). Cost efficiency was the seventh factor in this research. The dimensions of this factor were error, efficiency, and experience. The accounting profession must be able to become a modern communicator, showcasing their experience and expertise. This modern communicator plays a crucial role in solving problems, controlling company finances, analyzing reports, and preparing plans. This profession needs to evolve alongside digital developments where analytical data results and financial report analysis will be delivered in a structured manner using technology and accurate data storing systems. An accountant must realize that improving skills in the digital field is very important and needs to be developed consistently to increase efficiency and reduce errors that may occur (Lin, 2008). We found that the side effects of digitalization were the eighth factor formed in the results of research related to digital accounting. The dimensions of this factor were problem and enterprise. Enterprise is a dynamic alliance of member companies (bidders and bidders), who unite to leverage market opportunities. Enterprise has almost no employees or inventoried resources. Each member company will provide its core competencies in areas such as marketing, engineering, and manufacturing to the enterprise. When the market opportunity has passed, the enterprise is disbanded. The main problem in establishing an enterprise is choosing the right partner in the process of forming a dynamic alliance. However, it cannot be denied that partner selection is the main problem in this business. Problems that arise in partner selection are cost factors, due dates, and sub-project priorities. The risk of project failure is also an important factor in partner selection issues. Thus, an adequate accounting system is needed to help plan, budget, predict, and report financial information (Ip et al., 2003).

6. CONCLUSION

This research has generated several analyses based on the methods used. The Scopus-indexed database used in the research showed positive publication mapping results. Scientific research continued to experience significant growth from 2013 to 2023. Research on digital accounting was most often associated with engineering subjects. The bibliometric analysis revealed a correlation between the results of data processing using the VOSviewer tool and the research publications sampled in the research based on Network Visualization. This correlation led to the identification of 3 distinct clusters. Cluster 1, labeled as red, contained 13 items. Cluster 2, labeled as blue, consisted of 10 items. Lastly, cluster 3, labeled as green, contained 7 items. The results of the exploratory factor analysis (EFA) showed that eight driving factors for digital accounting were formed in testing this research data. These

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factors are related to the progress and success of implementing digital accounting in a business.

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