This study intends to examine and analyze the continuous accounting implementation with green transformational leadership as a moderation variable by conducting a survey. Accounting produces services that impacted by the industrial revolution, so that they need to prepare for the challenges of an industry that clings to inflexible rituals and indecision in adopting complex designs, technologies, and processes. This study uses primary data through questionnaires survey. The sample was 614 employees of the finance and information technology division at banks registered with the Bank Based on Core Capital Group. The result presents that digital capability has a positive influence on continuous accounting implementation as well as green human capital and green transformational leadership. While, cybersecurity awareness has no influence on continuous accounting implementation. Green transformational leadership is strengthening influence cybersecurity awareness to continuous accounting implementation while the rest have no moderation effect. The implications of this study are theoretically the development of new measurements for digital capability. The practical implication is by increasing digital capability, companies can have special programs that focus on self-development in terms of technology. Accounting as one of the branches of science affected by technology needs to update the method of storing accounting data securely. The Indonesian Institute of Accountants can make regulations regarding continuous accounting. Finally, the implication for the banking is to be able to pay more attention to cybersecurity by creating specific cybersecurity programs.

Keywords: continuous accounting, digitalization, cybersecurity, green concept, survey, banking, Indonesia

1. Introduction

The 4th industrial revolution demonstrates the fusion of physical assets and advances in digital technology [1]. Thus, accounting must prepare for the challenges of an industry that clings to inflexible rituals and indecision in adopting complex designs, technologies, and processes [2]. To answer this, continuous accounting is the best way to handle the problem. Continuous accounting is known as real-time information from record to report that provides real-time information. While, there are still many factors that will affect continuous accounting implementation, especially in developing countries such as Indonesia. Therefore, new study needs to be explored.

Increasing the digital capability is important [3] to achieve Indonesia's Vision 2045, where one of its pillars emphasizes the goals of human development and know-how of science and technology. To successfully carry out digital transformation, technologically literate human resources are needed. Thus, the digital expertise of accountants is one of the basic provisions that prospective accountants must have to be able to work in the midst of disruption threats [4]. Digital technology is also a powerful tool for industrial destruction to create the latest digital solutions and commitment in the acceptance of new digital technologies so as to provide benefits for industry and humans [5].

Companies that understand technology can help their business reach. This poses a risk related to data security due to improved connectivity. According to PwC's Global Economic Crime and Fraud Survey (2020), there are several types of fraud, where cybercrime occupies the second highest position with a percentage of 34% of the overall data. With the company's attention to cybersecurity, it is hoped that it can minimize the losses that cybercrime can cause. Research on the role of cybersecurity in entities remains relatively limited. In addition, previous research has not discussed how to increase awareness in the field of cybersecurity [6–9]. Cybersecurity arises because of the use of technologies such as cloud computing that pose risks related to data security [10]. Implementing and migrating to more comprehensive accounting capabilities brings change and disruption, including cybersecurity risks [11, 12]. Although,
2. Literature review and problem statement

Contingency theory pointed that all structure of an entities be driven retain a match or conformity among each other [24]. It states that there is no best way to achieve conformity between organizational and environmental factors to obtain good achievements for an organization. Contingency theory is used to define the influence of digital capabilities and cybersecurity awareness to continuous accounting implementation, where the application of digital capability and cybersecurity awareness in supporting continuous accounting implementation depends on the size of the company and the complexity of financial transactions. In addition, accounting data also needs to be protected from threats from external parties who have bad intentions towards the company. Large-scale companies need to guarantee the security of company data from hacker attacks because companies need to maintain their image, but in small-scale companies, cybersecurity awareness may be lower.

The essence of bounded rationality is limitations in processing information and solving problems that are used in determining life behavior of the leaders [25]. The leaders as decision makers are exposed due to their limited information, attention and ability to process information. Bounded rationality theory is used to define the relationship among Green Transformational Leadership (GTL) and Continuous Accounting Implementation (CAI). GTL is a management style that not only strengthens corporate responsibility for environmental protection and contributes to sustainable development, but also integrates the concept of environmental management into the product development process, but also provides a variety of environmentally friendly products to the general public. Every decision taken by a transformational leader is intended to achieve company goals. But on the other hand, the leader's thinking is also limited by the rationality of each individual which is limited by the abilities of each individual so that the achievements of a leader can also vary even though they have the same goals.

The transformation process will result in changes in each company's business activities [26]. One of the changes in accounting is, accountants not only deliver financial data and reporting on a periodic basis but also real-time analysis and intelligence. Continuous accounting is known as real time from record to report, a blueprint for more modern accounting that provides real-time information to accounting and finance teams, allowing accountants to allocate more time on strategy and analysis, enabling them to be proactive leaders rather than reactive operators. Effective implementation of continuous accounting requires a holistic approach that combines technology, process and people for continuous accounting improvement. Adopting technology to automate systems increases the benefits of process optimization and increases the long-term productivity of company's members of the accounting team [27], by improving reporting accuracy, preventing accounting errors, improving data integrity, and giving skilled employees more time to work on other tasks.

Digital Capability (DC) is a set of everyday schemes that use digital assets to make a difference in value. A digital asset refers to available IT resources, design knowledge and capabilities to effectively implement them [28]. Along with the increase in digital assets, digital capability is needed. Mastery of digital skills is necessary because without realizing it, nowadays almost all activities are carried out digitally. Integrating digital technology with professional digital talent requires digital skills. DC can be viewed as dynamic capabilities and described as an organization's ability to create new products, processes and respond to changing market conditions [5]. If the employees have these capabilities, it will be brought up company value, in term of economic and or non-economic value. Additionally, digital skills complement a company's digital orientation. Only companies that have the skills to work with new technologies are willing to adopt them and commit to transforming them into new products [4]. Likewise, digitally-enabled entities must have the commitment and drive to leverage recent technologies to create new products that offer a competitive advantage.

Cybersecurity is a branch of technology applied to networks to protect data or information and property from theft, natural disasters, corruption and allow protected information to be accessible and productive for its users to make necessary decisions [29]. The conception and flow for implementing a cybersecurity framework build on the talent and tools drive in implementing the COSO framework [30]. Cybersecurity isn’t simply a statistics era trouble, it's also a danger control trouble for groups that want worldwide solutions [6].

Practice has proven that the behavior of green participation of employees not only elevates the development of the employee, fulfills its job duties or environment of protective intentions, while achieving environmental performance and supporting organizational development [13]. When employees apply this empowerment to attain their environmental
goals, this is referred to as green human capital [14]. Environmentally friendly behavior at work is kind of environmentally friendly behavior at work that employees employ to meet their job needs and to be persistent with the systems of their organization [15].

Transformational leadership is a leadership that gaining entities attention and conditioning vigilant organizing [31]. Because managers are the engines of organizational sustainability [32]. Green Transformation Leadership can integrate eco-management concepts into the product enhancement. This not only increases social responsibility for environmental protection and devotes to sustainable development, however gives the public a choice among a variety of environmentally friendly products [33]. The idea of GTL is aligned to the social need for eco-development and also be viewed as support to transformation leadership [34], it could be combined with digital capability [35]. By understanding about GTL, the leader could support Sustainable Development Goals strongly.

The paper [5, 11, 36] presents the results of research about digital capability. The paper [5] shown that digital capability could increase digital innovation in company but it is the perspective from across industries, not specific in banking, while the paper [11] shown that there are some challenges for accountant to face era of digitalization so that they suggest to implementing continuous accounting, this research using qualitative method. Moreover, the paper [36] shown that digital capability is enabler for digital transformation in South Africa. It is necessary to explore how it is going in developing counting, as Indonesia. In the other hand, the paper [37–40] presents the result of research about cybersecurity awareness. The paper [37] shows that there are various developments of accounting practice that reflect, utilize or support digital companies and new technologies, including augmentation, big data analytics and blockchain technology. Thus, exploring cybersecurity awareness in Indonesia will be interesting. The paper [38] shows that technology impacts accounting in different ways that will change the profession drastically and should be effectively implemented into different aspects of cybersecurity, but the result is based on qualitative method. The paper [39] shows that when employees are aware of their company’s information security policy and procedures, they are more competent to manage cybersecurity tasks than those who are not aware of their companies’ cybersecurity policies, where this research is using respondent from across industry, not focus on banking. The paper [40] shows that cybersecurity awareness also positively influences perceived benefits of the risk framework and investment intention in United States of America. While, the paper [13, 15, 41] presents the result of research about green human capital. The paper [13] shows that responsible leadership stimulates employee green behaviors, and have important practical significance for strengthening the environmental protection behaviors of organizations in two provinces in China, which is Shandong and Shanghai province only so exploring green human capital in Indonesia will be interesting. The paper [15] shows that manager involvement all significantly affect the in-role and extra-role green behavior of employees positively based on across industry in China, not focus on banking area. The paper [41] shows that pro-environmental attitude positively predicted required employee green behavior and voluntary employee green behavior while this research still not connect it to accounting. But there was unresolved issue related to continuous accounting implementation in emerging country. The reason for this may be there is no regulation from related institutions. A way to overcome these difficulties can be by implementing continuous accounting through quantitative perspective. All this suggests that it is advisable to conduct a study on Indonesia. In other hand, all these works are theoretical, and no empirical study has been carried out on accountant and information technology employees as respondent. The complexity of the technology and its limited application seem to explain the reasons for the low level of research.

Digital expertise is an ability to understand, operate, use, and utilizes technology to access and manage information [3]. Integrating digital technology with professional digital talent requires digital skills. Digital capabilities can be viewed as dynamic capabilities and described as an organization’s ability to develop new products and processes and respond to changing market conditions [5]. Improving the ability of business processes is important to be carried out in the context of developing corporate strategy [35]. In general, digital capability can build skills and knowledge about the world of digitalization so that an accountant can manage its knowledge of digital technology [42]. By using these capabilities, the accountant could work more efficient than before since they start to implement technology to their daily work. To successfully carry out digital transformation, technologically literate human resources are needed. Moreover, in the era of digital technology disruption that demands everything in real-time. Continuous accounting is known as real time from record to report, a blueprint for more modern accounting, this provides real-time information to accounting and finance teams so accountants can spend more time on strategy and analysis, becoming active leaders rather than passive operators. To be effective requires a holistic approach that combines technology, process and people to deliver continuous accounting improvement [43]. Utilizing technology to automate flow increases the benefits of the optimization process while lift up the productivity of its members of the accounting team [27]. Contingency theory applied to analyze accounting designs and systems to provide information that companies can use for a wide variety of purposes and to deal with competition [24]. The application of digital capability supports the implementation of continuous accounting, this is aligned with research from [3, 11, 36]. The paper [5] shown that digital capability could increase digital innovation in company while the paper [11] shown that there are some challenges for accountant to face era of digitalization so that they suggest to implementing continuous accounting. Moreover, the paper [36] shown that digital capability is enabler for digital transformation in South Africa. It is necessary to explore how it is going in developing counting, as Indonesia. Companies that have complex accounting data, of course, feel more benefit from a person’s high digital capability. Thus, the current study has developed the following hypothesis:

$H_1$: Digital capability positively influences continuous accounting implementation.

Cybersecurity is not only an information technology issue, but also a risk management issue for companies that need global solutions [6]. Cybersecurity allows protected information to be accessible and productive for its users to make the necessary decisions [29]. The use of enterprise technologies such as cloud computing puts the validity of financial statements at risk, and accounting stan-
standard-makers afford appropriate guidance [44]. According to PwC’s Global Economic Crime and Fraud Survey (2020), cybercrime occupies the 2nd highest position with a percentage of 34% of all data so companies need to pay attention to cybersecurity from their company operations, including those related to accounting. This needs to be done because the concept of continuous accounting applies technology that will provide new opportunities in providing real-time information. Implementation and transition to a more extensive accounting function will conclude in some glitches such as the emergence of cyber risk [21]. The contingency theory approach states that there is no one of the best control systems that can be applied to all organizations. Thus, the company is expected to increase cybersecurity awareness along with the increasing use of technology in accounting.

This is aligned with research from [37–40] but the previous research has not explored in Indonesian perspective as emerging market. Thus, the ongoing study has developed the following hypothesis:

\[ H_2: \] Cybersecurity awareness positively influence continuous accounting implementation.

Practice shows that the environmentally liable and participatory act of employees not only promotes the development of the physical and mental health of employees, but also achieves environmental performance and supports the development of the organization while fulfilling professional obligations. Or prove that it fulfills the intention of protecting the environment [13]. The employee’s entities environment includes peer behavior, gesture actions, and experience [39]. Green human capital is necessary for the development of employee knowledge within the company [45]. Any attempt to find out why people behave the way they do in organizations, requires an understanding of individual differences. Every employee has differences in many ways. Employee behavior through social support can support sustainability practices more securely, as well as company survival [46, 47].

Eco-friendly workplace behavior in the role is a kind of eco-friendly behavior in the workplace employees maintain to meet their job requirements and aligned with the entities of system [15]. Accountants have an important role in implementing continuous accounting, which is an approach to the management of the company’s accounting cycle that includes advances in information technology and redefines the operation and role of finance in the company structure [47]. This transformation process will result in changes in each company’s business activities [26]. The transformation of accounting into continuous accounting can run well if the company’s employees have green goals. This is aligned with research from [2, 13, 15, 41]. The application of GHC aims to make employees pay attention to environmental conditions by carrying out various kinds of environmentally friendly activities. Employees behave “green” of course limited by the rationality of each individual with the aim of achieving the best results, namely the company’s sustainability goals in accordance with the concept of bounded rationality theory. Thus, the current study has developed the subsequent hypothesis:

\[ H_3: \] Green human capital has a positive influence on continuous accounting implementation.

GTL can produce a green vision that inspires and motivates society to actively accomplish green goals, thereby boosting the entities eco-image and the possibility of delivering eco-opportunities [33]. Every decision taken by a transformational leader is intended so that the entities goals can be accomplished. Transformational leaders are leaders who provide new ideas, develop new services, introduce new solutions, adopt new technologies and have flexible strategies to cope with change [16]. The implementation of accounting continuous results in changes in each company’s business activities, for example, management decisions do not only focus on the company’s financial impact [26]. The transformation of accounting into continuous accounting can run well if the company’s leadership participates in its development. This is aligned with research from [33, 48, 49] but all of them is not focus on banking area. They are using Small Medium Enterprise in China as sample. Along with the theory of contingencies where there is no best way to achieve compatibility between organizational and environmental factors in order to obtain good achievements for an organization [24]. Moreover, if the notion of GTL aligns to the societal need for eco-development, it can also be viewed as a culturally supported transformation leadership [34]. Thus, the recent study has developed the subsequent hypothesis:

\[ H_4: \] Green transformational leadership positively influence continuous accounting implementation.

Digital capabilities described as a personnel ability to create recent products and flow and respond to catch up market conditions [5]. Several companies have carried out digital transformation so that the company can run according to the times. To successfully carry out digital transformation, technologically literate human resources are needed. Moreover, in the era of digital technology disruption that demands everything in real-time. Continuous accounting is known as real time from record to report, a blueprint for more modern accounting that provides real-time information to accounting and finance teams, allowing accountants to allocate more time on strategy and analysis, enabling them to be proactive leaders rather than reactive operators. Utilizing technology to automate flow increases the benefits of the lifted-up process while increasing the productivity of members of the accounting team [27]. Moreover, DC complements the company’s digital vision. Because only entities that have the human resources to work with new technologies will actively attain these technologies and commit to revolutionizing them into new products [50]. About 75 percent of innovation behaviors are influenced by transformational leadership practices [16]. Information technology-based innovations are also carried out in the field of accounting. Accounting professionals are facing of advancing accounting technology [18]. Transformational leaders are leaders who provide new ideas, develop new services, introduce new solutions, adopt new technologies and have flexible strategies to cope with change [16]. This is in accordance with the theory of contingencies where there is no best way to achieve compatibility between organizational and environmental factors to obtain good achievements for an organization [24]. Thus, the current study has developed the following hypothesis:

\[ H_5: \] Green transformational leadership strengthens the influence of digital capability on continuous accounting implementation.

Cybersecurity is a branch of technology applied to networks to protect data or information and property from theft, natural disasters, corruption and allow protected information to be accessible and productive for its users to make necessary decisions [29]. Parties involved in cybercrime, attacking companies seek to obtain any information they get from the company to potentially benefit themselves [38]. At the same time, risks will arise regarding data
security related to improved connectivity. The use of enterprise technology companies such as cloud computing lays the validity of financial statements at risk, and accounting standard-makers produce appropriate supervision [44]. A successful organization will focus on collaboration, systems interoperability, closing the “digital” skills gap, and an initial focus on change management [51]. The use of technology in the context of continuous accounting gives rise to disruption in the form of cyber risk where this can be minimized if the company has good cybersecurity awareness.

GTL can integrate eco-management approach into the product enhancement. This not only increases social responsibility for eco-protection, but also subsidize to sustainable development [33]. The idea of GTL is in line with the social need for eco-development and can also be viewed as a form of culturally supported transformation leadership [34]. Thus, explicitly linking the sustainability actions of the company’s overall strategy managers [52]. According to the theory of contingencies, there is no best way to achieve conformity between organizational and environmental factors to obtain organizational goals [24]. Awareness of cybersecurity in supporting continuous accounting implementation depends on the size of the company. Large-scale companies need to guarantee the security of company data from hacker attacks because companies need to maintain their image, but in small-scale companies, cybersecurity awareness may be lower. This can happen if there is support from company leaders in connection with company innovation. Thus, the current study has developed the following hypothesis:

\[ H_6: \] Green transformational leadership strengthens the influence of cybersecurity awareness on continuous accounting implementation.

Green employee participation behavior promotes the physical and mental well-being development of member, but also achieves environmental achievement and helps the development of the organization while fulfilling job duties or environmental protection intentions has been proven by practice [13]. Green workplace behavior is a type of green workplace behavior that employees adopt to meet job requirements and comply with organizational rules and regulations [15]. Accountants play a key role in implementing ongoing accounting [53]. This transformation process will change the way all companies operate. For example, management decisions are not solely focused on the financial impact of a company [26]. Converting accounting to sustainable accounting can work if the company’s employees have green goals. The idea of green change leadership can also be viewed as a form of culturally supported change leadership as it aligns with the societal needs of green development [34].

A promising leadership style, GTL furnish a motivating eco-vision that inspires and motivates members to actively achieve eco-goals and missions, thereby creating a green image and green opportunities for the organization in increasing ability [33]. Every decision taken by a transformational leader is intended so that the company’s goals can be accomplished. But on the other hand, according to the bounded rationality theory, the leader’s thinking is also limited by the rationality of each individual which is limited by the abilities of each individual so that the achievements of a leader can also vary even though they have the same goals. The company considers which functions should and should not be reorganized in a multidisciplinary agile team. Companies that successfully scale with agile can see the direction of change in their business [54, 55]. Conversely, green leadership embodies the values and objectives of the top management directives that have an influence on the company’s green human capital [48]. Thus, the current research has developed the subsequent hypothesis:

\[ H_7: \] Green transformational leadership weakens the influence of green human capital on continuous accounting implementation.

3. The aim and objectives of the study

The aim of this original study is to examine and analyze the influence of digital capability (DC), cybersecurity awareness (CA), and green human capital (GHC) on the continuous accounting implementation (CAI) with green transformational leadership (GTL) as moderation variable. This will provide a solid foundation about how continuous accounting will growth in Indonesia as emerging market.

To accomplish the aim, the following tasks have been set:
- to analyze and obtain the respondent profile in this study;
- to analyze and obtain the statistic descriptive in this study;
- to analyze and obtain the validity and reliability of the questionnaire;
- to analyze and obtain the hypothesis test in this study.

4. Materials and methods of research

This study explores the digital capability, cybersecurity awareness, green human capital that impact continuous accounting implementation with green transformational leadership as moderation variable in perception of Indonesia’s banking. The graphical logical diagram of the relationship of research object is shown in Fig. 1.

This research uses a quantitative date-primary approach to explore the subject matter and provide insightful information. Primary data were collected from the survey with employee of finance and information technology department in Indonesia’s banking whereas the bank is registered in Group of Banks Based on Core Capital 2–4 corresponds to the classification of the Financial Services Authority. This study applied the purposive sampling technique to get respondent. The sample in this study is employees in the finance and IT divisions because employees of the finance and information technology divisions have an understanding of accounting and technology in accordance with the variables used in this study so that the information received is reliable. A total of 690 surveys were delegated to the elected employees that work in finance and information technology department; however, only 614 were rebounded and passed down for analysis, giving a response rate of approximately 88.98 %. In order to increase the response rate, consideration was given to anonymity and confidentiality. In addition, let’s conduct a pilot test with 40 respondents to confirm comprehension, validity, and reliability of the survey. This study applied Structural Equation Model – Partial Least Square method by using Smart-PLS as application. The tool works well even with large datasets and complex frameworks, thus providing effective search [56]. Moreover, this study investigates description of the respondents, do validity and reliability testing, along with hypothesis testing.
Continuous accounting implementation (CAI) as the dependent variable with six items, according to [47]. In addition, three dependent variables were adopted to this study, such as digital capability (DC) with eleven items according to [5] with modification, cybersecurity awareness (CA) with nine items according to [57] and green human capital (GHC) with twelve items according to [41, 58]. Furthermore, this study also applied green transformational leadership (GTL) as moderation variable with seventeen items according to [32, 56, 59]. This study also adopts gender and experience as control variable. Gender use coding, such as one for male and two for female, while experience use classification, such as 1–4 for 5–10 years; 11–15 years; 16–20 years; and more than 20 years of work experience respectively.

5. Results of research continuous accounting implementation

5.1. Respondent profile

In this study, let’s identify the 614 respondent profile that divided by gender, education, work experience and department which they working on. Table 1 shows the detail for respondent profile.

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Descriptions</th>
<th>Respond</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>322</td>
<td>52.4%</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>292</td>
<td>47.6%</td>
<td></td>
</tr>
<tr>
<td>Undergraduate (S1)</td>
<td>344</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Master (S2)</td>
<td>154</td>
<td>25.1%</td>
<td></td>
</tr>
<tr>
<td>Doctoral (S3)</td>
<td>116</td>
<td>18.9%</td>
<td></td>
</tr>
<tr>
<td>5–10 years</td>
<td>307</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>11–15 years</td>
<td>149</td>
<td>24.3%</td>
<td></td>
</tr>
<tr>
<td>16–20 years</td>
<td>100</td>
<td>16.3%</td>
<td></td>
</tr>
<tr>
<td>&gt;20 years</td>
<td>58</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>Finance, Accounting &amp; Tax</td>
<td>399</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Information Technology</td>
<td>215</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

Table 1

From Table 1, most of the respondents in this survey appeared to be male, namely 322 (52.4%) while women were 292 (47.6%). The last education was dominated by undergraduate education as many as 344 people (56%). For the most service period between 5–10 years as many as 307 people (50%). Meanwhile, the departments of the most respondents in this study came from the finance, accounting and tax departments as many as 399 people (65%).

5.2. Descriptive statistics

In this study, let’s define descriptive statistics of the answer from the respondents through minimum, maximum, mean and standard deviation value. Table 2 shows the result for descriptive statistics.

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>DC</th>
<th>CA</th>
<th>GHC</th>
<th>GTL</th>
<th>GD</th>
<th>CAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Maximum</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Mean</td>
<td>5.612</td>
<td>5.604</td>
<td>5.626</td>
<td>5.619</td>
<td>1.476</td>
<td>5.654</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.498</td>
<td>0.489</td>
<td>0.486</td>
<td>0.511</td>
<td>0.499</td>
<td>0.479</td>
</tr>
</tbody>
</table>

Table 2

Based on Table 2 point the mean value of the answer from the respondents for DC variable greater than the SD indicates that the sample data is homogeneous which means a good representation of the overall data. The mean value of the digital capability variable is 5.612, where the value is near by the maximum value, which means that according to respondents’ perception, the ability regarding digitization is an important thing to have.

The answer from the respondents for cybersecurity awareness variable has the mean value of the CA variable greater than the SD indicates that the sample data is homogeneous which means a good representation of the overall data. The mean value of the cybersecurity awareness variable is 5.604, where the value is near by the maximum value which means that according to the respondent’s perception, cyber security is important.
The answer from the respondents for green human capital variable has the mean value of the green human capital variable greater than the SD shows the sample data is homogeneous, which means a good representation of the overall data. The mean value of the green human capital variable is 5.626, where the value is near by the maximum value which means that according to the respondent’s perception, the importance of company employees in paying attention to and participating in the program with respect to greenery is important to carry out.

The answer from the respondents for gender variable has the mean value of the gender variable greater than the SD indicates that the sample data is homogeneous, which means a good representation of the overall data. The average value of the GD is closer to the minimum number of 1 which means that most of the respondents in this study are men.

The answer from the respondents for experience variable has the mean value of the experience variable greater than the SD indicates that the sample data is homogeneous which means a good representation of the overall data. The average value of the experience variable is 10 years, which means that most of the respondents have work experience between 5–10 years. The highest frequency is found in the range of work experience between 5–10 years with a total of 307 respondents or 50% of all respondents in this study. This shows that most of the respondents are tech-savvy people.

The answer from the respondents for continuous accounting implementation variable has the mean value of the continuous accounting implementation variable greater than the SD indicates that the sample data is homogeneous, which means a good representation of the overall data. The mean value of the continuous accounting implementation variable is 5.654, where the value is near by the maximum value, which means that according to the respondent’s perception, the implementation of continuous accounting is important.

5.3. Validity and reliability test

The outcome pointed the convergent validity that accomplished the correlation among items. It shows that almost all question items show an outer loadings value >0.3 so it can be summarized that most of the questions in this study have been valid. However, there are three questions that have an outer loadings value of less than 0.3, namely DC.2 questions, DC.4 questions and GTL.8 questions. DC.2’s question is that it is necessary to identify the latest digital opportunities. DC.4’s question is that it is necessary to master the latest digital technology. The GTL.8 question is that the leader encourages all employees to evaluate and double check back on a rumor. These three questions are invalid because the digital society in Indonesia is still at the stage of technological literacy only but is not a digital center in the world so that identifying the latest digital opportunities and mastery of the latest digital technology is not necessarily an important digital ability to have. In addition, the level of spread of fake news in Indonesia is still relatively high, so leaders have not been able to encourage all employees to evaluate and double check back on a rumor.

The higher outer loadings value in the digital capability variable is found in the DC.8 question, which is to verify company documents digitally. This shows that respondents rated the indicator as a major factor in digital capability. The highest outer loadings value in the cybersecurity awareness variable is in the CA.4 question, which is to measure cyber risk. This shows that respondents rated the indicator as a major factor in cybersecurity awareness.

The highest outer loadings value in the green human capital variable is found in the GHC.9 question, which is to use stairs to change floors. This shows that respondents rated the indicator as the main factor of green human capital. The highest outer loadings value in the green transformational leadership variable is found in the GTL.15 question, where the executives boost members to attain eco-goals. This shows that respondents rated the indicator as the main factor of green transformational leadership. The highest outer loadings value in the continuous accounting implementation variable is found in the CAI question.5, namely the use of accounting software. This shows that respondents consider these indicators as the main factor of continuous accounting implementation.

In addition, the results also highlight the composite reliability (CR) for the digital capability is 0.792, the cybersecurity awareness is 0.800, the green human capital variable is 0.820, the green transformational leadership is 0.790 and the continuous accounting implementation is 0.724, where the CR value is greater than 0.7 so that it can be summarized that all variables are reliable. In addition, the Cronbach’s alpha for the digital capability is 0.724, the cybersecurity awareness is 0.728, GHC is 0.761, GTL is 0.765 and the continuous accounting implementation is 0.546, where the CA is greater than 0.5 so that all variables are reliable.

Results showed discriminant validity indicating correlation between variables. It shows that most of the Heterotrait-Monotrait Ratio (HTMT) are smaller than 0.90 so it can be summarized that most of the variables are valid. While, the VIF value for all indicators is <10 so that there is no multicollinearity problem.

5.4. Hypothesis test

In this study, let’s conduct hypothesis testing to obtain and analyze the influence of digital capability, cybersecurity awareness, green human capital to continuous accounting implementation with green transformational leadership as moderation variable. Table 3 shows the results of hypothesis test.

The assumption used for moderation variables is quasi-moderator where moderation variables act as independent variables and also moderation variables. The moderation variable is GTL, where GTL affects continuous accounting implementation and GTL moderates the influence of digital capability, cybersecurity awareness and green human capital on continuous accounting implementation. According to Table 3, the regression equation carried out is as follows:

$$CAI=\alpha+0.378DC+0.019CA+0.353GHC+0.167GTL-0.178GTL*DC+0.086GTL*CA+0.019GTL*GHC+0.050GD-0.051EXP+e, \quad (1)$$

where CAI – continuous accounting implementation; DC – digital capability; CA – cybersecurity awareness; GHC – green human capital; GTL – green transformational leadership; GD – gender; EXP – experience.
Based on Table 3, it is possible to identify that the coefficient of determination is 56.6%. It means that the variation of CAI is explained by the independent variables and the remaining 43.4% can be explained outside of this research.

### Hypothesis Test Results

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Predictions</th>
<th>Coefficient</th>
<th>T-Statistic</th>
<th>P-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC → CAI</td>
<td>+</td>
<td>0.378</td>
<td>8.513</td>
<td>0.000*</td>
</tr>
<tr>
<td>CA → CAI</td>
<td>+</td>
<td>0.019</td>
<td>0.363</td>
<td>0.358</td>
</tr>
<tr>
<td>GHC → CAI</td>
<td>+</td>
<td>0.353</td>
<td>6.867</td>
<td>0.000*</td>
</tr>
<tr>
<td>GTL → CAI</td>
<td>+</td>
<td>0.167</td>
<td>4.256</td>
<td>0.000*</td>
</tr>
<tr>
<td>GD → CAI</td>
<td>+</td>
<td>0.050</td>
<td>1.715</td>
<td>0.044*</td>
</tr>
<tr>
<td>EXP → CAI</td>
<td>-</td>
<td>-0.051</td>
<td>1.994</td>
<td>0.023*</td>
</tr>
<tr>
<td>GTL.DC → CAI</td>
<td>+</td>
<td>-0.178</td>
<td>3.375</td>
<td>0.000*</td>
</tr>
<tr>
<td>GTC.LA → CAI</td>
<td>+</td>
<td>0.086</td>
<td>1.758</td>
<td>0.040*</td>
</tr>
<tr>
<td>GTHL.GHC → CAI</td>
<td>+</td>
<td>0.019</td>
<td>0.354</td>
<td>0.362</td>
</tr>
</tbody>
</table>

Adjusted $R^2$: 0.566

Note: CAI – continuous accounting implementation; DC – digital capability; CA – cybersecurity awareness; GHC – green human capital; GTHL – green transformational leadership; GD – gender; EXP – experience; sign level 5 %.

### 6. Discussion of continuous accounting implementation results

Based on Table 1, it can describe the characteristics of mid-high-level management in banks in Indonesia that dominated by the male; have a majority undergraduate education; and have a service period of under 15 years. Moreover, based on Table 2, it shows that the sample data is homogeneous which means a good representation of the overall data. The mean value of the digital capability shows that the ability regarding digitization is an important thing to have. The mean value of the cybersecurity awareness shows that cyber security is important. The mean value of the green human capital shows that the importance of company employees in paying attention to and participating in the program with respect to greenery. The mean value of the GTHL shows that transformation with respect to greeniness is important to carry out. The average value of the GD shows that most of the respondents in this study are men. The average value of the experience shows that most of the respondents have work experience between 5–10 years. The highest frequency is found in the range of work experience between 5–10 years with a total of 307 respondents or 50% of all respondents in this study. This shows that most of the respondents are tech-savvy people. The mean value of the continuous accounting implementation shows that according to the respondent’s perception, the implementation of continuous accounting is important. The result questionnaire also tested by validity and reliability test. It shows that almost all question items have been valid. Based on the result from composite reliability and Cronbach’s alpha, all variables are reliable. Results showed discriminant validity indicating correlation between variables. It shows that most of the Heterotrait-Monotrait Ratio (HTMT) are smaller than 0.90 so it can be summarized that most of the variables are valid. While, the VIF value for all indicators is <10 so that there is no multicollinearity problem. Thus, it is possible to move to hypothesis test.

Based on Table 3, the digital capability variable for continuous accounting implementation shows the coefficient is 0.378 while the probability value (0.000) smaller than 0.05, thus the 1st hypothesis is accepted. This research has concluded in justifying that digital capability has a positive effect on continuous accounting implementation. Respondents who have good digital capability will improve the implementation of continuous accounting, on the contrary, respondents who have poor digital capability have implications for the low implementation of continuous accounting. This high digital capability can be caused by obtaining information about digital technology [60], the existence of the latest digital opportunities, responses to a digital transformation that has been carried out, mastery of the latest technology, innovative development of products and services, the use of teleconferencing in business meetings, the use of email in correspondence activities, digital verification of company documents, storage of company documents in cloud storage, utilization of AI and IoT in the settlement of business transactions and the use of QRIS. Moreover, it could be depicted from the results of the description of the respondent’s answer to the continuous accounting implementation variable that the mean value of 5.654 means that the majority of respondents consider that the implementation of continuous accounting is meaningful to do. The application of digital capability supports the implementation of continuous accounting implementation, this is equivalent with research from [5, 11, 36]. In addition, this research is also in accordance with the theory of contingencies where there are situational factors in the implementation of a system, one of which is digital capability so that the greater digital capability, the higher the continuous accounting implementation.

Based on Table 3, the cybersecurity awareness variable for continuous accounting implementation shows the coefficient is 0.019 while the probability value (0.358) greater than 0.05 so that 2nd hypothesis is rejected. This research has not concluded in proving that cybersecurity awareness has a positive effect on continuous accounting implementation. This shows that the presence or absence of cybersecurity awareness will not affect the implementation of continuous accounting. These results are not in line with research from [37–40]. The National Cyber Security Index (NCSI) report noted that Indonesia’s cybersecurity index score was 38.96 points from 100 in 2022. This figure puts Indonesia in the 3rd lowest rank among G20 countries. Meanwhile, globally, Indonesia is ranked 83rd out of 160 countries. Based on this, it can be seen that the attention to cybersecurity in companies in Indonesia is still at a low level. Furthermore, companies will continue to use a more up-to-date accounting technology system regardless of whether the system has good cybersecurity or not. The company continues to implement continuous accounting because it provides a better efficiency impact [61]. It also speeds up the flow of company information so that management can make decisions effectively. Based on the above discussion, the measurement of cybersecurity awareness has to more comprehensive in future research. It might be could insert about cybersecurity policy and or involvement of specific agency such as cybersecurity agency.

Based on Table 3, the green human capital variable for continuous accounting implementation shows the coefficient is 0.353 while the probability value (0.000) smaller than
the concept of greenery in its development. This is constant with study from [21, 27, 33, 48, 49]. GTL is a leadership style that integrates the approach of eco-management into the product development flow, where not only increases the company’s responsibility for eco-protection and lift up sustainable development, but also gives the society a choice of different environmentally friendly products. Every decision taken by a transformational leader is intended so that the entities goals can be accomplished [62]. But on the other hand, based on bounded rationality theory, leader thinking is also limited by the rationality of each individual which is limited by the abilities of each individual so that the achievements of a leader can also vary even though they have the same goals.

Based on Table 3, the digital capability variable for continuous accounting implementation moderated by the green transformational leadership variable shows that the coefficient is –0.178 while the probability value (0.000) smaller than 0.05 so that the 5th hypothesis is rejected. This research has successfully proven that green transformational leadership strengthens the influence of digital capability on continuous accounting implementation. Moreover, this study also proves that GTL is quasi-moderation, meaning that the green transformational leadership variable acts as an independent variable as well as a moderation variable. In this study, let’s combine the respondent that working in finance and information technology department so that it is not possible to see which one the pure employee and which one the leader. Thus, it is one of limitation from this study. Digital capability is based on employee level but green transformational leadership is based on leader level.

Based on Table 3, the cybersecurity awareness variable for continuous accounting implementation moderated by the green transformational leadership variable shows that the coefficient is 0.086 while the probability value (0.040) smaller than 0.05 so that the 6th hypothesis is accepted. This research has successfully proven that green transformational leadership strengthens the influence of cybersecurity awareness on continuous accounting implementation. In addition, this research has also not succeeded in proving that GTL is a quasi-moderation. However, green transformational leadership is pure moderator meaning that this moderation variable only acts as a moderation variable, not as an independent variable.

Based on Table 3, the green human capital variable to continuous accounting implementation moderated by the green transformational leadership variable shows that the coefficient is 0.019 while the probability value (0.362) greater than 0.05 so that the 7th hypothesis is rejected. This research has not succeeded in proving that GTL strengthens the influence of green human capital on continuous accounting implementation. In addition, this research has also not succeeded in proving that GTL is a quasi-moderation. However, green transformational leadership is predictor moderation, meaning that the green transformational leadership variable only functions as an independent variable.

Green transformational leadership does not moderate the influence of green human capital on continuous accounting implementation. This is because green transformational leadership is leadership that prioritizes the concept of greenery in the management environment, including in the product development process with the aim of not only increasing corporate social responsibility but also for protection of the environment so that it can contribute to sustainable development [63]. Leaders do this in accordance with the company’s vision and mission so that short and long-term goals can be met. However,
green human capital is an environmentally friendly employee behavior so that employees can supply to sustainable development and in anticipation in overcoming the impact of global warming so that a go-green lifestyle arises among the community. The go-green lifestyle is a good thing but, in most people, it is only used as a style of joining friends and not to help protect the environment, especially in achieving the company’s green goals. It can be seen that GTL and green human capital have different goals that are not in line with each other so that GTL does not moderate the influence of green human capital on continuous accounting implementation. Data redundancy occurs in data collection for green human capital and green transformational leadership variables where data collection in this study is carried out on banking employees regardless of position level. Data redundancy arises when various groups in the entities get the look-alike data independently. This is also one of the reasons why green transformational leadership does not moderate the influence of GHC on continuous accounting implementation in this study.

The limitations in this study are first, this research was taken from a survey on banks in Indonesia so that the outcome could not be generalized along with types of companies. Second, questionnaires are given to respondents in the finance and information technology divisions so that this can lead to biased research results due to divergent in the level of accounting expertise and technology that respondents know. Third, there is redundancy between the variables of Green Human Capital and Green Transformational Leadership, causing insignificant results. Furthermore, there are several disadvantages in this study, namely there are inequalities regarding the understanding of accounting and technology among each respondent because the respondents in this study are employees who work in the accounting and information technology departments. In addition, leaders in Indonesia are still focusing on economic development only, not yet having the mindset to transform on the green concept.

The suggestion for further research is that the survey is taken in industries other than banking in Indonesia, for example the banking of certain regional regions. To generalize these results, it needs to be replicated with entities in other industries. The study encourages future research to explore more in-depth information by interviewing other stakeholders, who can contribute to the green transformational leadership and implementation of continuous accounting. In addition, sampling can be more focused on specific departments only in order to reduce the bias of research results.

### 7. Conclusion

1. This study intends to examine and analyze the influence of digital capability, cybersecurity awareness, and green human capital on the continuous accounting implementation with green transformational leadership as moderation variable. The total respondents in this study are 614 respondents. The departments of the most respondents in this study came from the finance, accounting and tax departments as many as 399 people (65%).

2. The statistic descriptive shows the sample data is homogeneous which means a good representation of the overall data. The mean value of the digital capability is 5.612, which means that according to respondents' perception, the ability regarding digitization is an important thing to have. The mean value of the cybersecurity awareness is 5.604, where the value is near by the maximum value which means that according to the respondent's perception, cyber security is important. The mean value of the green human capital is 5.626, where the value is near by the maximum value which means that according to the respondent's perception, the importance of company employees in paying attention to and participating in the program with respect to greenery the mean value of the GTL is 5.619, where the value is near by the maximum value which means that according to the respondent's perception, transformation with respect to greenish activities is important to carry out. The average value of the GD is closer to the minimum number of 1 which means that most of the respondents have work experience between 5–10 years. The highest frequency is found in the range of work experience between 5–10 years with a total of 307 respondents or 50 % of all respondents in this study. This shows that most of the respondents are tech-savvy people. The mean value of the continuous accounting implementation is 5.654, where the value is near by the maximum value, which means that according to the respondent’s perception, the implementation of continuous accounting is important.

3. The result questionnaire also tested by validity and reliability test. It shows that almost all question items show an outer loadings value >0.3 so it can be summarized that most of the questions in this study have been valid. The highest outer loadings value in the green human capital variable is found in the GHC.9 question, which is to use stairs to change floors. This shows that respondents rated the indicator as the main factor of green human capital. The highest outer loadings value in the green transformational leadership variable is found in the GTL.15 question, where the executives boost members to attain eco-goals. This shows that respondents rated the indicator as the main factor of green transformational leadership. The highest outer loadings value in the continuous accounting implementation variable is found in the CAI question.5, namely the use of accounting software. This shows that respondents consider these indicators as the main factor of continuous accounting implementation. Based on the result from composite reliability and Cronbach’s alpha, all variables are reliable. Results showed discriminant validity indicating correlation between variables. It shows that most of the Heterotrait-Monotrait Ratio (HTMT) are smaller than 0.90 so it can be summarized that most of the variables are valid. While, the VIF value for all indicators is <10 so that there is no multicollinearity problem. Thus, it is possible to move to hypothesis test.

4. The outcome of this research is DC has a positive effect on continuous accounting implementation. Thus, theoretically this study develops of new measurements for digital capability. With digital capability, companies can have special programs that focus on self-development in terms of technology, for example with in-house training programs and synergies between industry and technology associations in Indonesia. Company employees can improve their abilities in the digital world, for example using teleconferencing in business meetings, using email in correspondence, verifying company documents digitally, storing company data on cloud storage, utilizing AI and IoT in solving tasks, and paying for daily transactions using QRIS. This research also contributes to the importance of continuous accounting implementation which is researched through a quantitative
paradigm. In the other hand, cybersecurity awareness does not have a positive effect on continuous accounting implementation. This result is interesting since based on perspective from Indonesian banking employees, the implementation of continuous accounting still running even though the cybersecurity awareness is not high. GHC has a positive effect on continuous accounting implementation, the employees can contribute to the reduction of gas emissions by using technology in carrying out their duties. Meanwhile, GHC is known as the concept of members who pay attention to cybersecurity by creating special programs with respect to procedures. The banking has to pay more attention to cybersecurity before cybercrime occurs. The Company can consider, assess and advise investors in determining their investment policies in order to mitigate the risks caused. While, GTL does not strengthen the influence of GHC on continuous accounting implementation. Overall, it is also to fill research gaps and furnish more comprehensive empirical evidence on the relationship of digital capability, cybersecurity awareness and green human capital to continuous accounting implementation with green transformational leadership as a moderation variable. The practical implications of this research are that it can contribute practically that digital capability, cybersecurity awareness, green human capital and green transformational leadership can increase the effectiveness of continuous accounting implementation.

Conflict of Interest

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

Financing

The study was conducted without financial support.

Data Availability

The manuscript has no associated data.

References

1. Industry 4.0: At the intersection of readiness and responsibility. Deloitte. Available at: https://www2.deloitte.com/ch/en/pages/risk/articles/industry-4-0-intersection-of-readiness-and-responsibility.html  
46. What is Continuous Accounting? Corporate Finance Institute. Available at: https://corporatefinanceinstitute.com/resources/accounting/continuous-accounting/