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## IT CAPABILITY'S IMPACT TOWARDS COMPETITIVE ADVANTAGE THROUGH BUSINESS PROCESS AGILITY ON INDONESIA'S ACCOUNTING FIRMS DURING PANDEMIC

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#### ABSTRACT

The existence of work from home policy due to the Covid-19 pandemic had caused several service industry sectors, such as accounting firms, to be hardly affected. However, to survive in the business competition, these accounting firms have to adapt by increasing their IT capability and business process agility to create a competitive advantage over their competitors. This research aims to observe the IT capability and the agility of Indonesia's accounting firms and examine the mediation effect of business process agility. The samples are public accounting firms registered in the Indonesian Institute of Accountants and a service accounting firm with more than one licensed accountant. The analysis technique used in this research is structural equation modelling (SEM) with three variables: IT capability, business process agility, and competitive advantage. The results show that IT capability directly impacts the competitive advantage of the firms, and the mediation of business process agility increases the total effect of IT capability towards competitive advantage. Therefore, this study could acknowledge Indonesia's accounting firms surviving this pandemic by creating a competitive advantage by increasing their IT capabilities and business process agility. IT capability, business process agility, competitive advantage, Keywords:

words: IT capability, business process agility, competitive advantage, accounting firm, pandemic covid-19

Adanya kebijakan work form home akibat pandemi Covid-19 telah memberikan dampak yang berat pada sektor industri jasa, salah satunya adalah kantor akuntan publik. Agar tetap dapat bersaing, kantor akuntan harus mampu beradaptasi dengan meningkatkan kapabilitas IT (IT capability) dan kelincahan proses bisnis (business process agility) untuk menciptakan keunggulan kompetitif (competitive advantage) atas pesaingnya. Penelitian ini bertujuan untuk menguji IT capability dan business process agility kantor akuntan di Indonesia serta menguji pengaruh mediasi dari business process agility. Sampel penelitian adalah kantor akuntan publik yang terdaftar di Ikatan Akuntan Indonesia dan kantor akuntan jasa yang memiliki lebih dari satu akuntan yang berpraktik. Teknik analisis data yang digunakan dalam penelitian ini adalah structural equation modelling (SEM) dengan tiga variabel: IT capability, business process agility, dan competitive advantage. Hasil penelitian menunjukkan bahwa IT capability berdampak secara langsung terhadap competitive advantage perusahaan dan mediasi business process agility memperkuat pengaruh IT capability terhadap competitive advantage. Untuk itu, penelitian ini memberikan wawasan kepada kantor akuntan di Indonesia tentang bagaimana cara bertahan di masa pandemi Covid-19 dengan menciptakan competitive advantage melalui IT capability dan business process agility. Kata kunci: kapabilitas IT, kelincahan proses bisnis, keunggulan kompetitif, kantor

akuntan, pandemi Covid-19

### INTRODUCTION

Corona Virus (Covid-19), which first appeared in Wuhan, China, spread quickly and infected millions of people, later declared by the World Health Organization a global pandemic. In order to decrease the spread of the virus, many countries in the world, including Indonesia, have created a policy called social distancing. This policy makes a difference in the working pattern known as work from home (WFH). WFH policy and social distancing make human interaction restricted. The most affected sector by this policy is industrial services.

Industrial service is a sector in which its activity involves many human interactions (Guzman, Prema, Sood & Wilkes, 2020). The restriction in human interaction causes this sector's activity to become obstructed.

One of the businesses in industrial service which is very intriguing to be researched is accounting services. Accounting service consists of public accounting firm and accounting services firm. The accounting firm is one of the businesses affected by the pandemic because the complexity of the workload is increasing bv the new reporting arrangements, taxation, and financial rules issued by the currently Indonesian Government, followed bv enormous disruptions in the business field. According to the Indonesian Institute of Accountants, a remote audit is one of the disruptions in field. This disruptive this business situation is not a new case for the accountant sector. Even before the pandemic, this sector has been disrupted because of the rise of digitalization which the business's threatens survival. According to (Frey & Osborne, 2017), accounting jobs have a 98% possibility of being computerized.

Consequently, the making of journals, inputting reported data, report reconciliation, audit, and appraisal risk that was done manually, slowly began to be changed by accountant software with Artificial Intelligence or machine learning technology, which started to become popular. These things make accounting service companies no longer monopolize knowledge because accounting the accountant is not the only one who can gather data and summarize financial Currently, client companies reports. require accounting services to help them prepare some strategic plans & business management and design IT systems in client companies (Amirul, Mail, Bakar & Ripain, 2017). In order to face the disruption because of the computerization era and pandemic, it is crucial for accounting firms in Indonesia to improve IT capabilities by following the new technology development so that it will not be eradicated by sophisticated technology. Besides IT capabilities, a pandemic also demands that all businesses, including accounting firms, adapt quickly to changes. Accounting firms can adapt to the changes by improving the flexibility and responsiveness of the company's business process. It cannot be denied that a company's ability to adapt to dynamic market changes and continuously provide market needs is a key to gaining a competitive advantage.

IT capabilities in this subject are crucial in helping business processes become more responsive and helping companies create competitive advantage. According to Benitez, Ray & Henseler (2018), Wong, Tseng & Tan (2014), and Chen, Wang, Nevo, Jin, Wang & Chow (2014), information technology can assist business processes to become more responsive and flexible, allowing quicker response to changes in client's needs. Agile, flexible, and responsive business processes can attain more value to clients and quickly adapt to changes in a business environment to meet clients' needs and advantage. create a competitive An efficient and concise business process could increase the output (Ahmad & Arshad, 2014) and have a superior value chain (Nadarajah, Kadir & Khalid, 2019). Besides that, IT could simplify business process reengineering with the new boundaries according to market conditions. IT also helps decrease communication limits between function lines; therefore, the information can be distributed easier and make decisions faster (Huang, Lee, Chiu & Yen, 2015). IT will also help reduce nonactivity, value-added reduce business process complexity and eliminate inefficient processes. The change of business process structure to become brief and efficient could increase the possibilities for the companies to gain a competitive advantage (Ram, Wu & Tagg, 2014).

Besides the business process, IT capability could directly affect competitive advantage by creating differentiation for the company. IT capability is one of the most challenging aspects to imitate, so it is often integrated with the business strategy. IT can assist the company in managing market information which later can be used to analyze market needs that could influence client's satisfaction and lovalty (Teekasap, 2016). The company's IT capability can also boost its image in the client's view and as one factor that can differentiate the company from competitors will give the company an advantage (Ahmad & Arshad, 2014). Companies with high IT capability can be beneficial for creating, storing, redirecting, and using tacit and explicit knowledge to and maintain continuous create а competitive advantage (Bilgihan & Wang, 2016). Companies with high IT capabilities could support information systems to be integrated, and business activities become flexible and agile. Therefore, the company could quickly adapt to market changes and gain a competitive advantage.

Based on the description above, IT Capabilities play an essential role in creating competitive advantage. а Therefore, it is essential for accounting firms in Indonesia to start increasing their IT capabilities not to be eroded by the digitalization era and pandemic since the accounting business is very susceptible to being shifted by computerization. In some previous studies, research on this variable was carried out regularly. However, in this study, the research was carried out during the Covid-19 pandemic, when a significant disruption occurred. Another gap in this research is examining the role of IT Capability in accounting firms which has not focused on many previous studies. The accounting firm is interesting to discuss since this sector's sustainability was threatened due to rapid technological developments.

# LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

In this study, IT capability is defined as the firm capability to mobilize and leverage ITbased resources to be combined with other resources within an organization (Queiroz, Tallon, Sharma & Coltman, 2018). In order to support and increase business strategy and business process, an organization must be capable of managing its IT resources (Chakravarty, Grewal & Sambamurthy, 2013). Business process agility is a firm's ability to react to changes by reengineering its business activities (Kale, Aknar & Başar, 2019). Competitive advantage is the relative quality of the organization to be achieved through the company's performance that can exceed its competitor's performance and provide long -term benefits to its clients (Dereli, 2015). Competitive advantage could be seen from two aspects: cost advantage and differentiation advantage (Le & Lei, 2018).

Some previous studies show that competitive advantage is influenced by some elements such as IT capabilities and business process agility. Thus, these two variables become control variables that influence competitive advantage. These things are also supported by the grand theory used in this research, the Resource-Based View Theory.

Resource-based View (RBV) is a management strategic and theoretical approach to understanding how a company can achieve sustainable competitive advantage (Adeniran & Johnston, 2016). Based on RBV theory, a sustainable competitive advantage of an organization could be achieved if the organization has some specialty and difference, durable, rare, irreplaceable, difficult to imitate resources by other organizations, and give the organization's more value to stakeholders. In RBV theory, resources are the most fundamental in an organization (Taher, 2012), where resources can be formed in tangible and intangible ways. The intangible resources can be a capability or information owned by an organization (Haseeb, Hussain, Kot, Androniceanu & Jermsittiparsert, 2019; Fajri, Zamzami & Siregar, 2020). The hypotheses to be tested in this study are as follows.

- H1: IT capability has a direct impact on business process agility.
- H2: IT capability has a direct impact on competitive advantage.
- H3: Business process agility has a direct impact on competitive advantage.

In this era, the role of Information technology is considered an essential factor in supporting the sustainability of an

organization's competitive advantage. Therefore, RBV theory nowadays starts to combine IT as an element in RBV. As a result, companies with a high IT capability can outplay others in benefits and performance costs (Chen et al., 2014) In perspective of RBV theory, the IT capabilities are one of the essential factors which determine an organization's advantage because it can organize and utilize IT-based resources to be combined with other resources and capabilities in an organization to maintain the organization's superior performance (Panda & Rath, 2016; Gao, Zhang, Gong & Li, 2020). However, some research on RBV shows that IT does competitive not directly influence advantage. Instead, IT influences internal business processes, giving organizations a competitive advantage. An agile business process can support the company to survive in a dynamic business environment (Kurniawan, Budiastuti, Hamsal & Kosasih, 2020). In this case, IT is expected to influence internal business processes to become easier and faster to respond to threats or changes in the market (Queiroz et al., 2018). The hypothesis to be tested in this study is as follows.

H4: Business process agility mediates the role of IT capability to competitive advantage.

## **RESEARCH METHODS**

To answer these research studies, all the public accounting firms and accounting services firms in Indonesia can reference the population research object. Based on the directory of accounting firms/public accountant in 202 0, there were 639 units of public accounting firms in Indonesia. Based on Accounting Services Office directory in 2019, there were 564 units of accounting service firms in Indonesia. Therefore, the total population of this research was 1203 units. The sampling technique used in this research is purposive sampling. In this technique, the samples that later will be the respondents must fulfill the requirements which the researcher already determined. The requirements are public accounting firms registered in Indonesia's Audit Board and accounting service firms with more than one registered accountant.

Data gathering was done by using questionnaires. First, questionnaires were sent to accounting firms that fulfill the requirements of purposive sampling. Based on the directory, the number of accounting firms that fulfill purposive sampling requirements is 263 units, SO the questionnaire was sent to 263 accountant firms distributed in Indonesia. Then, the questionnaire was sent through logistic services and followed up by phone calls to response increase the rate from respondents. For accounting firms located in the exact location as the researcher, the data collection was conducted by visiting to give the questionnaire and taking it back after a few days. The minimum sample required for this research based on Slovin's (1960) e quation is 92.

arrangement The of the questionnaire's contents consists of the respondent's profile (name, firm's name, position, and the number of staff), ten questions about IT capability (Kmieciak, Michna & Meczynska, 2012), seven questions about business process agility (Chen et al., 2014), and seven questions about competitive advantage (Thatte, Rao & Ragu-Nathan, 2013). All questions can be seen in the appendix. We used a Likert scale of 5, with one strongly disagree and five strongly agree. First, we conducted pilot testing to evaluate the validity and reliability of item questionnaires by sending the questionnaire to ten respondents. Then. after the item questionnaires were valid and reliable, we distributed the questionnaires to 263 respondents for five months, from January until May 2021. From 263 questionnaires that had been distributed, only 116 questionnaires were returned, which shows the response rate is 44%. Of the 116 questionnaires that had been gathered, 16 questionnaires could not be used, and therefore, the amount of data used in this study is 100.

The dependent variable in this study is a competitive advantage measured by four primary indicators: quality, delivery dependability, price, and service innovation. Meanwhile, the independent variables in this study are IT capability and business process agility. IT capability was measured by three leading indicators: IT knowledge, integration of IT with business strategy, and IT in internal communication. Seven reflective indicators measured business process agility. The theoretical framework can be seen in Figure 1. The data analysis was done using Partial Least Square (PLS), part of the Structural Equation Model (SEM). Three stages of testing must be carried out in SEM-PLS: the outer model test, the inner model test, and hypothesis testing. First, the outer model test examined the construct's validity and reliability. The validity test is done by applying convergent and discriminant validity, while the reliability test is analyzed using Cronbach's Alpha and composite reliability values. Second, the inner model test examined the causality relationship between constructs. Finally, hypothesis testing was done to analyze whether the relationship between variables is significant. A 95% confidence interval was used for hypothesis testing in this study.

## ANALYSIS AND DISCUSSION

Table 1 shows the accounting firm's profile that participated in this research. Most of the respondents in this study came from public accounting firms (78%) and accounting service firms, as much as 22%. Based on respondents' positions who fill the questionnaire, most of them are staff (57%) then, followed by partners (26%) and managers (11%). Based on the business scale categorized by the number of staff in the relevant accounting firms, most accounting firms participating in this study

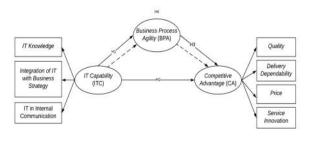


Figure 1 Theoretical Framework

are medium-scale companies (45%). It shows that this research is not focused on big-scale companies only but also examines the competitive advantage of small to middle-scale accounting firms in Indonesia.

Table 2 represents the descriptive analysis of variables in this research: IT capabilities, business process agility, and competitive advantage. The descriptive analysis was done by calculating each question item's average value, bottom two boxes (BTB) value, and top two boxes (TTB) value from each question item. The results reveal that most respondents agree that IT capabilities are necessary to be owned by accounting firms, especially to face the disruption of the business environment caused by the Covid-19 pandemic. Therefore, accounting firms must improve IT-based resources dan possess high IT capability to survive in the business competition. For business process agility variable, BPA5 has the maximum average with a score of 4.36, which shows that most accounting firms keep expanding their market.

On the other hand, BPA4 has the lowest average, with a score of 3.97. The possible reason behind this is the service cost that cannot be easily changed and cannot be compared to competitors since it depends on the complexity of the client's

| Table 1.Respondent Profiles |           |  |  |  |
|-----------------------------|-----------|--|--|--|
| Category                    | Frequency |  |  |  |
| Company types               |           |  |  |  |
| KAP                         | 78        |  |  |  |
| KJA                         | 22        |  |  |  |
| <b>Respondent Position</b>  |           |  |  |  |
| Staff                       | 57        |  |  |  |
| Partner                     | 26        |  |  |  |
| Manager                     | 11        |  |  |  |
| Supervisor                  | 5         |  |  |  |
| Head of Department          | 1         |  |  |  |
| Business Size               |           |  |  |  |
| Small                       | 36        |  |  |  |
| Medium                      | 45        |  |  |  |
| Large                       | 19        |  |  |  |

needs and the quality of the service. The average score for competitive advantage (4.32) shows that respondents agree that competitive advantage is significant to be achieved by the company, especially in crises, to survive in business competition. The most important aspects which need to be considered by the company are quality, delivery dependability, price, and service innovation.

Table 3 represents the result of the research constructs' convergent validity and reliability test. The convergent validity was done to observe the outer loading and Average Variance Extracted (AVE) values. The table shows that all the constructs passed the convergent validity test where all the outer loading scores and AVE values are above 0.40. Outer loading with a value above 0.40 is still allowed because this research is explanatory (Hair Jr, Hult, Ringle & Sarstedt, 2021). All constructs in this study also passed the reliability test since composite reliability, and Cronbach's

Alpha is all above 0.70. The indicator in ITC, which primarily represents and describes the construct, is ITC4, with an outer loading score of 0.906. This indicator is related to the use of IT by accounting firms to help them analyze information related to market potential. While for BPA, the indicator that primarily represents is BPA6 with an outer loading score of 0.865, which is related to the variance of services that accounting firms offer clients. The last variable, CA, was represented by CA5, which is related to the quality advantage of accounting firms towards competitors with an outer loading score of 0.783.

This study's research question is to what extent IT capabilities in accounting firms can create a competitive advantage with business process agility as a mediator. To answer the research questions, four hypotheses were built and tested in this research.

There are four hypotheses tested to answer the research questions. Three of

| Descriptive Analysis |                           |       |     |     |                    |                    |               |
|----------------------|---------------------------|-------|-----|-----|--------------------|--------------------|---------------|
| Construct            | Dimension                 | Items | BTB | TTB | Individual<br>Mean | Dimensio<br>n Mean | Grand<br>Mean |
| IT capability        | IT knowledge              | ITC1  | 3%  | 76% | 4.17               | 4.01               | 3.92          |
|                      |                           | ITC2  | 8%  | 72% | 4.00               |                    |               |
|                      |                           | ITC3  | 12% | 63% | 3.87               |                    |               |
|                      | IT integration            | ITC4  | 11% | 68% | 3.90               | 3.87               |               |
|                      | with business             | ITC5  | 11% | 57% | 3.69               |                    |               |
|                      | strategy                  | ITC6  | 9%  | 69% | 3.94               |                    |               |
|                      |                           | ITC7  | 6%  | 68% | 3.96               |                    |               |
|                      | IT in internal            | ITC8  | 5%  | 64% | 3.86               | 3.88               |               |
|                      | communication             | ITC9  | 7%  | 66% | 3.89               |                    |               |
|                      |                           | ITC10 | 8%  | 65% | 3.88               |                    |               |
| Business             |                           | BPA1  | 1%  | 87% | 4.32               |                    | 4.18          |
| process              |                           | BPA2  | 2%  | 90% | 4.32               |                    |               |
| agility              |                           | BPA3  | 6%  | 69% | 3.98               |                    |               |
|                      |                           | BPA4  | 5%  | 72% | 3.97               |                    |               |
|                      |                           | BPA5  | 1%  | 90% | 4.36               |                    |               |
|                      |                           | BPA6  | 2%  | 82% | 4.18               |                    |               |
|                      |                           | BPA7  | 2%  | 79% | 4.12               |                    |               |
| Competitive          | Quality                   | CA1   | 0%  | 97% | 4.57               | 4.58               | 4.32          |
| advantage            |                           | CA2   | 0%  | 99% | 4.63               |                    |               |
|                      |                           | CA5   | 3%  | 69% | 4.10               |                    |               |
|                      | Delivery<br>dependability | CA3   | 0%  | 96% | 4.49               | 4.30               |               |
|                      |                           | CA4   | 0%  | 99% | 4.55               |                    |               |
|                      | Price                     | CA6   | 0%  | 84% | 4.30               | 4.30               |               |
|                      | Service                   | CA7   | 3%  | 71% | 4.12               | 4.12               |               |

| Table       | 2.   |   |
|-------------|------|---|
| Descriptive | Anal | v |

them are direct relationship hypotheses, hypothesis is for and one indirect relationships to examine the impact of The value mediation. acceptance to determine whether the hypothesis is being accepted or rejected is a t-statistics score greater than 1.96 with 95% as the confidence value or with P-value less than 5%.

The result of hypothesis testing shows that the first hypothesis, which examines the relationship between IT capability and business process agility, is accepted. It reveals that IT capability significantly and directly impacts the business process agility. These things can be seen from t-statistics values (13.686) greater than 1.96 and a p-value score of 0.000, which is less than 0.05. The coefficient score, which is 0.652 and positive, shows that these two variables are positively correlated. The more agile and flexible the business process, the higher IT capability owned by accounting firms. Dimension of IT capability, related to business process, is the integration of IT in business strategy. Most respondents agree that while the company is trying to plan and develop IT resources, they must be integrated with the business strategy.

IT presence could help a company analyze market potential (ITC4). Therefore, the company can be more prepared to face future changes and be faster in taking and responding to market opportunities (BPA1 and BPA6). The outer loading of ITC4 in Table 3 is the highest among others; therefore, this aspect needs to be improved by accounting firms to support business process agility and create a competitive advantage. During this pandemic, the government also issued new rules for reporting and some financial relaxation. IT could help accounting firms keep up with

| Construct     | Dimension      | Items | Loadings | AVE   | Composite<br>Reliability | Cronbach'<br>s Alpha |
|---------------|----------------|-------|----------|-------|--------------------------|----------------------|
| IT capability | IT knowledge   | ITC1  | 0.843    | 0.618 | 0.940                    | 0.929                |
|               |                | ITC2  | 0.873    |       |                          |                      |
|               |                | ITC3  | 0.903    |       |                          |                      |
|               | IT integration | ITC4  | 0.906    |       |                          |                      |
|               | with business  | ITC5  | 0.664    |       |                          |                      |
|               | strategy       | ITC6  | 0.788    |       |                          |                      |
|               |                | ITC7  | 0.857    |       |                          |                      |
|               | IT in internal | ITC8  | 0.459    |       |                          |                      |
|               | communication  | ITC9  | 0.737    |       |                          |                      |
|               |                | ITC10 | 0.726    |       |                          |                      |
| Business      |                | BPA1  | 0.776    | 0.596 | 0.912                    | 0.888                |
| process       |                | BPA2  | 0.705    |       |                          |                      |
| agility       |                | BPA3  | 0.759    |       |                          |                      |
|               |                | BPA4  | 0.808    |       |                          |                      |
|               |                | BPA5  | 0.719    |       |                          |                      |
|               |                | BPA6  | 0.865    |       |                          |                      |
|               |                | BPA7  | 0.764    |       |                          |                      |
| Competitive   | Quality        | CA1   | 0.732    | 0.522 | 0.883                    | 0.847                |
| advantage     |                | CA2   | 0.768    |       |                          |                      |
|               |                | CA5   | 0.783    |       |                          |                      |
|               | Delivery       | CA3   | 0.760    |       |                          |                      |
|               | dependability  | CA4   | 0.665    |       |                          |                      |
|               | Price          | CA6   | 0.549    |       |                          |                      |
|               | Service        | CA7   | 0.750    |       |                          |                      |

Table 3.Construct Convergent Validity and Reliability

changes and later offer new services based on government rules and clients' needs (BPA2). IT can also help the decision making process (ITC5) with the existing data, such as machine learning technology. Therefore company could deliver service and value chain faster to clients. IT could the also support company in communicating efficiently with clients Human interaction (ITC6). is being restricted in this pandemic period, and there was a massive change in work patterns. Therefore, IT is essential in acting as an easy and safe communication tool with clients and internal companies. A company can still provide services to clients, especially when many companies need accounting services firms for financial consulting. The research result above is aligned with the previous research, which examined the relationship between these two variables. The result from some previous research also mentions that higher IT capabilities can help a company's business process become more flexible and responsive against changes that happen swiftly and unpredictable in a business environment (Benitez et al., 2018; Ahmad & Arshad, 2014; Chen et al., 2014; Huang et al., 2015; Wong et al., 2014).

The second hypothesis in this research is the direct relationship between IT capability and competitive advantage, in which the effect is significant. The hypothesis was also accepted since the tstatistics and p-value have fulfilled the acceptance requirement. The correlation between these two is positive, which means the higher IT capability owned by accounting firms, the more extensive possibilities for the firm to gain a competitive advantage. IT could support accounting firms to compete and survive in a business environment. In IT capability's variable, there is an indicator related to the ability of accounting firms to maintain communication with the client using IT support which is ITC1. In this case, accounting firms can continue to build a relationship with clients to maintain client loyalty since it is one of the critical things for accounting firms to not erode from the business competition. Other than that, if firms accounting can still maintain communication with clients in this crisis, accounting firms could understand the client's problem well and deliver relevant services. These cases can increase competitive advantage in terms of quality which is a dimension of competitive advantage. The other indicator in IT capability shows that accounting firms in Indonesia are already capable of innovating in IT (ITC2) and have high technical expertise in IT (ITC3). The high innovation capabilities in IT and technical expertise by accounting firms owned could differentiate a company from competitors and help shape its image in the client's view. IT can differentiate sources because it cannot be imitated easily since IT quite expensive. investment cost is Innovation in IT (ITC2) can also help companies create new services according to clients' needs. Therefore accounting firms can own unique services that could help to gain а competitive advantage (CA7). Furthermore, IT capability integrated with business strategy (ITC7) can create a more efficient business process. Therefore the operational cost can be reduced, and accounting firms can give competitive prices compared to competitors (CA6). This research aligns with previous research that examines the connection between these two variables. The result shows that the higher the IT capabilities, the superior position of accounting firms in competing

| Table 4.   Results of Hypothesis Testing |                  |                     |         |           |  |
|--|------------------|---------------------|---------|-----------|--|
| Hypothesis                               | Path Coefficient | <b>T-Statistics</b> | P-Value | Results   |  |
| H <sub>1</sub> : ITC à BPA               | 0.652            | 13.686              | 0.000   | Supported |  |
| H <sub>2</sub> : ITC à CA                | 0.436            | 5.180               | 0.000   | Supported |  |
| H <sub>3</sub> : BPA à CA                | 0.379            | 3.837               | 0.000   | Supported |  |
| H <sub>4</sub> : ITC à BPA à CA          | 0.247            | 3.773               | 0.000   | Supported |  |

with competitors (Bilgihan & Wang, 2016; Ahmad & Arshad, 2014; Teekasap, 2016).

The third hypothesis in this research is to examine the direct relationship between business process agility and competitive advantage. The results show that the relation between these two variables is significant and positively correlated. The more agile a business process, the more significant accounting firms can gain a competitive advantage. The item with the highest outer loading in BPA is BPA6 which is related to the accounting firms' capabilities to offer service innovation to clients; therefore, this aspect needs to be improved. Suppose accounting firms could have a high level of service innovation relevant and appropriate to the changes in clients' needs. In that case, it can create differentiation for the company and make it hard to be imitated the competitor. Therefore, it will lead the related firms to gain a competitive advantage. The indicator with the secondhighest outer loading is BPA4 which is related to accounting firms' capabilities to improvise service costs due to competitors' changing prices. If the business process is agile and efficient, the operational cost will be easier to recalculate and be reduced quickly. Therefore the operational cost can compete with the competitor (cost advantage). The third indicator with the highest outer loading is BPA1, related to firms' capabilities to respond to client needs change. The average score for this indicator is strongly agreed upon, revealing that many accounting firms in Indonesia already have this capability. The client will need accounting firms with this capability will be needed continuously by the client and maintain their competitive advantage. The fourth highest outer loading is an accounting firms' capabilities in adopting new technology to provide better, faster, and affordable services. This capability can support accounting firms in achieving cost advantage and differentiation advantage. The result in this research is aligned with previous studies which examine the connection between these two variables. The results show that the more agile and responsive the business process, the more competitive advantage the company gains (Astuti & Rahayu, 2018; Benitez et al., 2018; Chen et al., 2014; Huang et al., 2015).

fourth hypothesis The in this research is to examine the mediation effect of business process agility in the relation between IT capabilities and competitive advantage. The statistical analysis reveals that BPA's mediation on the relation between ITC and CA is significant. The coefficient is positive, which means that the more agile the business process, the more it will boost IT capability in creating a competitive advantage. These results align with previous research stating that IT could influence competitive advantage not directly, but entering its role through the business process by helping business processes become more agile and business process agility will bring competitive advantage (Ram et al., 2014). IT plays an essential role in making the business process more agile and responsive by being information distribution tool an to communicate with internal and clients faster. IT will also support analyzing market potential so that the company will be more prepared to adjust its services and be more responsive to the changes. IT also helps reduce non-value-added activity; therefore, the flow of business process becomes more concise, and the value can be delivered faster to the client and bring a competitive advantage to the company. Both direct and indirect relationships significantly impact competitive advantage; therefore, it needs to be analyzed further by calculating the Variance Accounted For (VAF) value to know how much the influence of business process agility mediation. The VAF calculation result is 36.2%. The results of the VAF calculation show that business process agility partially explains the relationship between IT capability and competitive advantage by 36.2%, and the remaining 63.8% shows that capability directly IT affects the competitive advantage of accounting firms. Although the mediation effect of business process agility is partial, the role of mediation could not be neglected since its existence makes IT capability effect on competitive advantage stronger. The

bootstrapping results show that the direct effect value from IT capability to competitive advantage is 0.436. The mediation effect of business process agility increases the impact of IT capability on competitive advantage by 0.247, and the overall total effect increases to 0.683. The increase in total effect shows that business process agility also needs to be considered because it can strengthen the impact of IT capability on competitive advantage by 36.2%.

From the discussions above, it can be concluded that IT capability can help accounting firms in Indonesia achieve a competitive advantage. The results align with RBV theory which states that IT can be the primary resource for firms to gain a competitive advantage. In addition, the study's results also align with several RBV theoretical studies, which state that IT can create a competitive advantage through business process mediation. This study also shows that mediations' total effect is higher than IT capability's direct effect on competitive advantage. Therefore, business process agility as a mediator can strengthen the impact of IT capability on competitive advantage, so accounting firms need to improve their business process agility.

## CONCLUSION

This research analyzes and examines the relationship between IT capability and business process agility on competitive advantage. The test results show that IT capability significantly and directly affects accounting firms' competitive advantage. However, if accounting firms also increase the agility of their business processes, this will strengthen the role of IT capability to create a competitive advantage. Based on the data that has been gathered, it can be that there are pretty seen several accounting firms in Indonesia that have a high level of IT capability and business process agility. However, some aspects need to be improved. IT capability facilitates internal communication. supporting discussion especially and essential suggestions for the company to improve continuously. Besides, IT's role in analyzing market change needs to be improved because this aspect has the highest outer loading score. Other than IT, business process agility also needs to be built by accounting firms, especially to adopt new technology to deliver services faster with higher quality and affordable prices. Accounting firms also need to improve agility in creating new types of services according to client needs, and their services will be used by clients continuously. Therefore, it could help firms to create a competitive advantage. It is suggested for future research to add several variables that can affect postpandemic competitive advantages, such as employee empowerment and leadership. This study's results contribute to acknowledging competitive advantage in the accounting industry, which has not been the focus of other research and also helps the accounting industry consider any aspects that need to be improved to create a competitive advantage.

## LIMITATIONS AND SUGGESTIONS.

There are several limitations to this research. First, the research models and hypotheses were only tested in the service industry due to time and cost constraints. Second, research data collection was carried out during the Covid-19 pandemic. Third, there were still many adjustments and new disruptions experienced by the service industry, which affected the accuracy of research results.

are recommendations for There further research from some of the limitations above. First, further research can add other variables affecting business process agility and employee empowerment, such as IT governance (Ilmudeen, 2021), organizational innovation (Yildiz & Aykanat, 2021) Second, further research can test this research model in the manufacturing industry to see its relevance to the model (Wang, Gu, Ahmad & Xue, 2022). Third, further research can reexamine this model post-pandemic to see if the research results are still the same or whether there are significant differences (Arokodare & Falana, 2021; Golshan, 2018).

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## APPENDIX

| <b>Table 5.</b><br>Item Questionnaire    |   |  |  |  |  |
|--|---|--|--|--|--|
| Construct/Dimension                      | Item  |  |  |  |  |
| IT capability (Kmieciak                  | <i>et al.</i> , 2012)   |  |  |  |  |
| IT knowledge                             | ITC1: Our company know to develop and maintain IT-based communication links with our customers  |  |  |  |  |
|  | ITC2: Our company is very knowledgeable about new IT-based innovations  |  |  |  |  |
|  | ITC3: Our company possess a high degree of IT-based technical expertise   |  |  |  |  |
| Integration of IT with business strategy | ITC4: Our company using IT to collect and analyse market information  |  |  |  |  |
|  | ITC5: In our company, we frequently utilize decision-support systems  |  |  |  |  |
|  | ITC6: Our company has IT-based links with customers<br>ITC7: There is an integration of strategic business planning and<br>IT planning in our company |  |  |  |  |
| IT in internal communication             | ITC8: Our company use IT to facilitate discussions and feedback<br>on various issues of importance to our company                                     |  |  |  |  |
|  | ITC9: We use IT to update employees about developments within our company regularly   |  |  |  |  |
|  | ITC10: We use IT to facilitate internal communication between<br>employees in different departments and locations                                     |  |  |  |  |
| Business process agility                 |   |  |  |  |  |
|  | BPA1: Our company is quickly responding to changes in aggregate client demand   |  |  |  |  |
|  | BPA2: Our company easily customizes service to suit an individual client  |  |  |  |  |
|  | BPA3: Our company is quickly reacting to new service launches by competitors  |  |  |  |  |
|  | BPA4: Our company is quick to introduce new pricing schedules<br>in response to changes in competitors' prices  |  |  |  |  |
|  | BPA5: Our company is trying to expand into new regional or international markets  |  |  |  |  |
|  | BPA6: Our company easily renew our services variance to be offered to clients   |  |  |  |  |
|  | BPA7: Our company quickly adopt new technologies to produce better, faster and cheaper products and services  |  |  |  |  |
| Competitive advantage                    | (Thatte et al., 2013)   |  |  |  |  |
| quality                                  | CA1: Our company offer services that are highly reliable  |  |  |  |  |
|  | CA2: Our company can compete based on quality<br>CA5: Our company is highly reliable to finish the jobs   |  |  |  |  |
| Delivery dependability                   | CA3: Our company provide dependable delivery  |  |  |  |  |
|  | CA4: Our company deliver customer orders on time  |  |  |  |  |
| Price                                    | CA6: Our company offer competitive prices   |  |  |  |  |
| Service innovation                       | CA7: Our company offer unique services  |  |  |  |  |