Exploring the Relationship between Robotic Process Automation, Digital Business Strategy and Competitive Advantage in Banking Industry

Panji Priyanto, Etty Murwaningsari, Yvonne Augustine

Faculty of Economics and Business, Trisakti University, Jakarta, Indonesia
panji221021914015@std.trisakti.ac.id; etty.murwaningsari@trisakti.ac.id (Corresponding Author); yvonne.augustine@trisakti.ac.id

Abstract. This study aims to explore the impact of modernizing a business by incorporating digital technology, physical resources, and individual creativity on gaining a competitive advantage. Specifically, it examines how the implementation of robotic process automation (RPA), digital business strategy, and digital transformation have affected the competitiveness of the banking industry. The study used structural equation modeling (SEM) and surveyed 832 banking employees. The results suggest that implementing RPA, a digital business strategy, and digital transformation can significantly improve a company's competitiveness. These findings can be applied to other developing countries, such as Indonesia, where businesses face increased competition in the digital age. The study emphasizes the importance of proactively modernizing a business to maintain a competitive edge in today's rapidly changing business environment. Additionally, the study suggests that effective leadership and a culture that encourages the adoption of digital technology are crucial for the successful implementation of these strategies. The research also highlighted the importance of managers having a strong understanding of digital tools and the digital business strategy to identify opportunities and threats related to the company's digital strategy. Overall, the study emphasizes the need for businesses to stay current with digital technology and modernization to remain competitive in today's digital age.

Keywords: Robotic process automation, Digital business strategy, Digital transformation initiatives, Competitive advantage

1. Introduction

Digitization creates new ways for companies to create added business value. Business modernization by combining digital technology, physical resources, and individual creativity is crucial in transforming innovative businesses that can form competitive advantages (Berawi et al., 2020). Already, robotic technology has had a significant impact on the commercial and industrial sectors. Now, a new technology known as robotic process automation (RPA) is forecast to have an even more significant impact on how humans perform their jobs in the years to come (Santos et al., 2020). Although RPA is most employed for initiatives to improve operational excellence, it is also applicable in various contexts. Even though RPA is a hot topic in the business world, there is a pressing need for additional research on the theoretical and practical ramifications of the technology (Hofmann et al., 2020). The continuously shifting digital landscape is the primary driver of ongoing digital transformation, resulting in the development of complex information systems (Vom Brocke et al., 2018). Automation and robotics are not new phenomena in digital transformation. Many businesses are currently utilizing RPA as a component of their automation efforts, and this trend is expected to continue. What are the most common challenges and barriers to RPA implementation, and how can organizations overcome these challenges?

RPA helps organizations better navigate the complexities of achieving and maintaining compliance in a rapidly evolving regulatory landscape. The originality of this research lies in the fact that it provides a new measurement of the RPA idea, which was initially referred to as research (Cooper et al., 2021). Implementing RPA in accounting and finance or other industries aims to automate repetitive processes and achieve cost efficiency and effectiveness as described in the dimensions of quality, efficiency, and effectiveness in research (Cooper et al., 2021). However, this study proposes adding a compliance dimension because the quality of compliance with automatic regulations will increase with the increase in efficiency and effectiveness. Compliance audits can happen at any time. In addition, the audits required to achieve compliance can be costly and time-consuming to prepare. Organizations must thoroughly prepare for audits, with compliance automation and reporting benefits, which include automated logging tasks and processes, records of when exceptions occur, and how human intervention occurs. So that companies have access to perfect audits and are also ready whenever needed. Automation with software robots can significantly benefit organizations: shorter processing times, reduced human errors, lower operating costs, increased levels of compliance, and higher data accuracy (Radke et al., 2020). All the updated dimensions in this study had gone through a pilot study before these indicators were used in research data. The novelty of this study is that a new measurement of the RPA concept, initially referred to by Cooper et al. (2021), uses five dimensions: work changes, work satisfaction, career prospects, fears, quality, efficiency, effectiveness, and overall impressions. This research develops new dimensions, namely the dimensions of security, documentation, compliance, and communication channels.

The phenomenon known as digital transformation is a significant phenomenon fundamentally altering how industrial organizations function and is bringing them into the age of industry known as Industry 4.0. (Parida et al., 2019). With the assistance of digital technology, businesses are discovering innovative approaches to their job, ultimately leading to enhanced operational performance (Hesse, 2018). For businesses to maintain their position in the market, they are being pressured to alter their value generation method by adopting various digital technologies (Vial, 2019). Despite the widespread acceptance of digital transformation and the increased knowledge of digital practices over the previous decade, the body of prior research still needs to fully comprehend the organizational shifts that occur during digital transformation. A survey of primary literature demonstrates that our knowledge of digital transformation needs to be more cohesive. Because of this gap in understanding, there is a pressing need for more definitive

recommendations for study and practice in corporate change management. This study looks at a case study by Sony dan Naik (2020) that studies the significant enabling variables of digital transformation advancement in modern settings.

It is necessary for organizations that wish to modernize and acquire a competitive advantage in the digital era to combine digital technology, physical resources, and the creativity of individual employees (Berawi et al., 2020). Enterprises need to have a digital business plan in order for them to function within a digital ecosystem, simplify their processes, and integrate them using digital technology(Schneider, 2018). Nevertheless, it is not just about technology but also organizational learning, process change, and successful leadership (Schneider, 2018). Managers need to have a strong understanding of digital tools and the digital business strategy to recognize opportunities and hazards related to the firm's digital strategy. Managers play a crucial role in the formation of the digital strategy of the organization. Managers play an essential part in developing a company's digital strategy, and to do so effectively, they need to have a comprehensive awareness of both digital tools and the digital business plan. This will allow them to recognize opportunities and threats (L. Xue, 2014). The creation of a culture inside an organization that encourages the growth, implementation, and transition to digitality is something that managers are obligated to do to steer their companies toward digitalization (Chuang & Lin, 2015). Additionally, the management team should be comfortable with digital technologies and have a clear vision for digitality, and developing digital skills inside the digital environment should have reached a mature stage (L. Xue, 2014). Administrative capacity, which refers to the ability of managers to apply digitality in corporate strategy, the mindsets and skill sets of employees, and the workplace, is an essential component of digital technology (L. Xue, 2014).

This study aims to explore the impact of modernizing a business by incorporating digital technology, physical resources, and individual creativity on gaining a competitive advantage. Specifically, it examines how the implementation of robotic process automation (RPA), digital business strategy, and digital transformation have affected the competitiveness of the banking industry. This research is expected to produce new RPA measurements for the context in Indonesia and as a reference medium for further analysis using the same concept and research basis. In addition, this research is also expected to provide empirical evidence regarding the relationship between the effect of implementing RPA, digital business strategy, and digital transformation initiatives on a company's competitive advantage.

2. Theoretical Review and Hypotheses

2.1. Robotic process automation implementation and competitive advantage

RPA enables substituting human work with robots, improving financial resource management and less downtime. When RPA is used, there is a cost reduction, a quality improvement, and a speedup in processing times. The increased cost efficiency, task control, and value creation that can result from this can benefit a company's overall competitiveness. RPA has also been demonstrated to be effective in reducing the quantity of repetitive manual jobs as well as error rates, according to studies (Anagnoste, 2017). Another advantage of RPA is that it enables robots to operate around the clock, conduct more complex processes and activities, identify in-process detections, and create new high-paying employment. It has been discovered that RPA can increase the quality of accounting techniques and the knowledge organizations in Lithuania possess (Klovienė & Gimzauskiene, 2015). RPA can also be readily implemented into pre-existing systems without requiring changes to the existing IT landscape, saving money that would otherwise be wasted (Vedder et al., 2016). Companies that utilize RPA to better their overall business strategy will earn higher profits than those who use it for cost reduction. This is because the latter companies will only benefit from other chances if they employ RPA for cost reduction (Lacity & Willcocks, 2016b). Additionally, robotic process

automation has the potential to significantly improve the efficiency and effectiveness of a company's financial operations by reducing the need for a clearing system and manual settlement, both of which can lengthen the time it takes for financial transactions to be completed (Lacity & Willcocks, 2016a).

Software that performs robotic process automation (RPA) is an efficient way to standardize procedures, manage enormous transaction volumes, comply with regulations, and improve process maturity (Willcocks et al., 2015). It can provide chief financial officers a competitive advantage by assisting them in managing essential financial operations, boosting market transparency, and developing new markets for international securities (Vedder et al., 2016). CFOs can fulfill their performance goals by increasing the efficiency and frequency of processes, which can be accomplished by automating repetitive jobs using robots. In addition, when more business procedures are automated with the help of technology, people are freed to focus on activities that provide more value to the company. Increasing the number of RPA-automated processes in an organization can improve the potential value that the business can produce.

Additionally, there is a vital communication factor, as prior research and pilot studies have indicated that RPA's technological qualities might lead to employee resistance. Effective communication can prevent this resistance (Syed et al., 2020). This can include concerns about one's employment and a need for more faith in technological advancements (Suri et al., 2017). As a result, it is essential to ensure that the most critical stakeholders and users within the company comprehend the innovation and are on board with it to completely grasp the value created by adopting RPA.

H1: Robotic process automation implementation has a significant effect on competitive advantage.

2.2. Digital business strategy and competitive advantage

Wang et al. (2020) claims that Chinese companies have created, tested, and verified a framework to link digital business strategy and corporate efficiency (Wang et al., 2020). Chi et al. (2018) provide a framework that describes the process of value creation and digital business strategy appropriation in organizations that employ the e-selling process based on a research model validated with survey and financial data. The framework describes in detail how these activities occur in online retail establishments. E-collaboration capabilities, another type of digital capability, are shown to fully mediate the impact of a digital business strategy on a company's success in a study conducted by Chi et al. (2018). The results of a study by Zhao et al. (2015), researchers put their theory to the test in this study by analyzing survey results from all businesses in China. Zhao et al. (2015) found that investing in IT human resources increased firm value. The resulting inter-organizational e-business skills for value creation can further amplify the effects of digital partnerships and channel partner relationships. Kurtz et al. (2021) discovered that not all digital business methods yield favorable results has ramifications for information systems research and how organizations function today. However, Kurtz et al. (2021) conducted an empirical study in which they offered four unique digital business strategies and explored the consequences of each. This study delves into digital business strategy, an approach businesses or companies use to improve their bottom lines.

H2: Digital business strategy has a significant effect on competitive advantage.

2.3. Digital transformation initiatives and competitive advantage

A questionnaire served as the critical research instrument in the study carried out by Furjan et al. (2020), whose purpose was to comprehend and assess various aspects of digital transformation technologies and business concepts. This was done to locate and research digital transformation activities undertaken by Croatian businesses. They concluded that these programs encourage enterprises to employ the proper

technological principles to raise their power and level of competition. According to the findings of Guo & Xu (2021) research on the impact of digital transformation on the operational and financial performance of Chinese businesses, the intensity of digital transformation has a U-shaped relationship with financial performance and a positive relationship with operational performance. The research also found that digital transformation positively correlates with operational performance. The researchers discovered another finding that showed a positive correlation between digital transformation and operational success. They also found that the long-term impact of digital transformation on operational performance is substantially more significant than its impact on financial performance. This was a finding that came as a surprise to them. This study aims to shed light on the myriad ways digital transformation impacts organizational performance and assists businesses in establishing goals for digital transformation, focusing on Indonesia's banking industry. The research will be conducted in Indonesia.

According to Fitzgerald et al. (2014), only a tiny fraction of businesses have the necessary management and technology skills to use digital technology to enhance their competitiveness effectively. Many of the difficulties businesses experience in this endeavor can typically be traced back to those working for businesses that resist change (Kumar Basu, 2015). According to Von Leipzig et al. (2017), cultural barriers are frequently overlooked in business, so companies must be aware of them. People and businesses need a solid understanding of the strategic goals behind digital integration and transformation efforts (Kaufman & Horton, 2018). Even though developing a unique strategy for digital transformation that takes into account all of its priorities, coordination mechanisms, and steps are essential, there is still a need for clear guidelines that cover transformation strategies used by different organizations (Matt et al., 2015; Chanias dan Hess, 2016). According to Yoo et al. (2010) achieving a competitive advantage necessitates the implementation of a strategic framework that makes the most of the one-of-a-kind capabilities offered by digital technology built into products. Xue et al. (2022) researched the relationship between digital transformation, crossing boundaries, and a company's long-term competitive advantage. The researchers concluded that digital transformation positively affects a company's long-term competitive advantage and can assist a company in achieving a long-term competitive advantage.

H3: Digital transformation initiatives has a significant effect on competitive advantage.

2.4. RPA and competitive advantage mediated by market orientation.

Incorporating technology into business operations is necessary to improve the efficacy and efficiency of market-based innovations and processes. This can be measured by how satisfied customers are, how much competition there is, and how well different functions coordinate. The influence of robotic process automation (RPA) on a company's ability to maintain a competitive advantage in Indonesia has yet to be investigated, even though it is a relatively new concept. There has yet to be a comprehensive investigation into how RPA affects a company's performance. Previous studies on computerization and automation have investigated their effects on companies' levels of financial performance (Gatian et al., 1995; Bharadwaj, 2000; Kotha & Swamidass, 2000; Ravichandran & Lertwongsatien, 2005). However, this research aims to shed new light on the topic by considering a broader range of factors and analyzing it in an era when computers were not widely used in commercial settings. In addition, the study deviates from previous research in that it incorporates constructs that might have little impact on the results.

H4: Market orientation strengthens RPA's relationship with a competitive advantage.

2.5. Digital business strategy and competitive advantage mediated by market orientation.

Understanding and catering to the needs and inclinations of one's target market are essential components of customer-centric marketing strategies (Hillebrand et al., 2011). This indicates that businesses need to provide goods and services that go above and beyond what is anticipated by the customer (Guenzi & Troilo, 2007). Additionally, companies are responsible for being aware of the competition in their industry and seeking opportunities to gain a competitive advantage. This idea can be made more understandable by catering to the customer's requirements. Customers now have access to more information sources than ever before, thanks to the proliferation of online and traditional marketing forms. Therefore, businesses must be proactive and anticipate their customers' unspoken requirements (Chuang, 2018). According to research, market orientation has positively impacted companies' performance across various industries (Chen et al., 2014; Kamboj & Rahman, 2017; Su et al., 2021). As a result, the significance of market orientation in connecting digital business strategy and achieving a competitive advantage has been emphasized throughout this research.

H5: Market orientation strengthens digital business strategy relationship with a competitive advantage.

2.6. Digital transformation initiatives and competitive advantage mediated by market orientation.

Many businesses have begun adjusting their systematic innovation to adapt dynamically to shifting environmental conditions (Doz & Kosonen, 2010). The new managerial problems presented by digitalization will significantly impact a wide variety of businesses due to the pull and push effects of technology and the market (Adner, 2002; Kolbjornsurd et al., 2016). A significant number of businesses are making extensive preparations for this change and are attempting to exert an active impact on the transformation sector to, on the one hand, defend their core businesses and, on the other, create new prospects for growth (Chao, 2014). In addition to strategic, organizational, and process transformations, such as the appointment of a Chief Digital Officer, a large number of businesses operating in a variety of industries, including the automotive, chemical, and electronic sectors, have begun to implement specific digitization initiatives (Phan et al., 2017; Plastino dan Purdy, 2018). This initiative is a detailed program aimed at proactively shaping and reactively addressing specific digitalization challenges in company-specific situations. For example, innovative home solutions in the construction industry or driving a car in the automotive sector are examples of company-specific situations that could benefit from this initiative. These digitalization endeavors typically take the form of programming strategies, each composed of several constituent parts (Agrawal et al., 2017; Wilson et al., 2017). However, many of these strategic efforts have yet to accomplish their primary goals. Many businesses assert that their digital transformation efforts have been unsuccessful up to this point (Andriole, 2017; Bughin dan Van Zeebroeck, 2017; U. I. Lichtenthaler, 2017).

H6: Market orientation strengthens digital transformation initiatives relationship with a competitive advantage.

The research model in Figure 1 is based on the literature review conducted on RPA, digital business strategy, digital transformation initiatives, and competitive advantage. The model will guide the research and help test the proposed hypotheses. It is essential to validate the model through further research and data analysis. The research results will provide insights into the relationships between RPA, digital business

strategy, digital transformation initiatives, and competitive advantage and how they impact a company's performance.
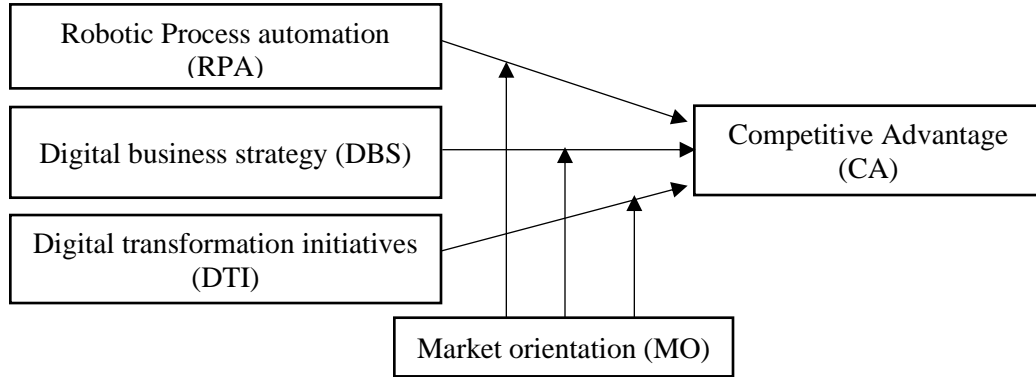

Fig. 1. Theoretical Model

3. Research Method

This study uses a quantitative research approach. This study aims to test the theory, establish facts, show relationships between variables, provide statistical descriptions, and estimate and predict results. The dependent variable in this study is Competitive Advantage, with Market Orientation as a moderating variable. The independent variables in this study are RPA Implementation, Digital Business Strategy, and Digital Transformation Initiatives. This study also uses control variables, namely length of work and specialization. To strengthen the intervention and control of this research by conducting a pilot study which is a simulation of the research. The simulation also aims to examine the setting of this study in translating operational variables into questionnaire items from indicators measuring the dependent, independent, and moderating variables. The size of the indicators in this study was measured on an ordinal scale. In the questionnaire, each question has a likert scale value of one to six.

Hypothesis testing uses full model structural equation analysis (SEM). Full SEM, apart from confirmation theory, also explains whether there is a relationship between latent variables (Ghozali & Ratmono, 2017). Before testing the hypothesis, factor analysis will be carried out first. Which is used to measure the correlation between different statements according to the variables, the construct consists of and is used to measure the validity of the construct. Furthermore, partial least squares (PLS) path analysis will be carried out to test whether the independent variables affect the dependent variable (Urbach Frederik, 2010 and Henseler et al., 2016) using a predetermined research model. The coefficients on testing the inner model hypothesis are said to be accepted if the T statistic value is more significant than T table 1.96 (α 5%), which means if the T statistic value for each hypothesis is greater than the T table, then it can be declared accepted or proven. T

This research is cross-sectional, namely research conducted at a particular time, which is only used for a specific time and is not carried out at different times to be compared. This study will seek to obtain data from questionnaires submitted to respondents to meet the required number of samples for analysis. The depth of this research or research describes or explains a problem whose results can be generalized. This research emphasizes the aspect of data breadth so that the data or research results represent the entire population. This study carried out measurements to achieve depth in this study, and each social phenomenon was translated into several problem components, variables, and indicators. Each variable is measured by giving different number symbols according to the category of information related to that variable. By using

numeric symbols, quantitative mathematical calculation techniques can be carried out to produce general conclusions within a parameter. The main goal of this methodology is to explain a problem but produce generalizations.

This study's research environment is the non-contrived environment (natural environment or field setting), namely the banking and insurance sub-sectors. This study used data collection techniques through the questionnaire to obtain data related to the problem under study. This questionnaire is a data collection technique that uses a list of questions or questions regarding matters related to the problem under study. The unit of analysis in this study is the company, with employee respondents representing the company. The sample of this research is the banking and insurance sub-sector companies in Indonesia. The type of data used in this research is primary data. The primary data obtained came from questionnaires distributed to the respondents. The items contained in the questionnaire refer to research. The measurement variable in this study is to give the value of the characteristics of the research object. The measurement variable describes the determination of the construct so that it becomes a variable that can measure with the measurement scale used.

4. Results and discussions

This study used a sample of 832 data which will be used as a research sample which has descriptive statistical data presented in table 1 as follows:

Table 1: Descriptive statistics

Variabel	N	Minimum	Maximum	Mean	Std. Deviation
RPA	832	2	6	4,52	0,758
DBS	832	2	6	4,68	0,892
DTI	832	2	6	4,64	0,833
MO	832	3	6	4,83	0,814
CA	832	3	6	4,86	0,843

Source: SmartPls3

The results of the validity test are shown in Table 2. All items were found to be valid with a factor loading value greater than 0.6. Additionally, to ensure the accuracy of hypothesis testing, the reliability test must have a Cronbach's Alpha value higher than 0.6, a Composite reliability value higher than 0.7, and an AVE value higher than 0.5.

Table 2: Construct Reliability and Validity

Variable	Cronbach's Alpha	rho_A	Composite Reliability	AVE
CA	0,885	0,885	0,907	0,521
RPA	0,962	0,962	0,965	0,503
DBS	0,936	0,936	0,944	0,511
DTI	0,877	0,877	0,903	0,537
MO	0,855	0,856	0,890	0,536

Source: SmartPls3

The data in Table 2 indicates that all the variables in the study have high levels of reliability, as indicated by their total reliability scores being greater than 0.7, Cronbach's alpha greater than 0.6, and AVE greater than 0.5. This suggests that the measures used in the study are consistent and reliable for use in hypothesis testing.

Table 3: Result of Path Coefficients

	Hypothesis	**Prediction**	**Coefficient**	**P Values**
RPA -> CA	H1	+	0.458	0.000*
DBS -> CA	H2	+	0.209	0.000*
DTI -> CA	H3	+	0.208	0.000*
MO -> CA	H4	+	0.228	0.000*
RPA*MO -> CA	H5	+	-0.044	0.000*
DBS*MO -> CA	H6	+	0.092	0.019*
DTI*MO -> CA	H7	+	0.005	0.886
Adjusted R^2				0,800

Notes: * Supported < 0,05, Source: SmartPls 3

The modified R2 value is presented in Table 3, along with a significant value of P value 0.5. This value is considered influential and significant (Hair et al., 2019). The independent variable RPA implementation has P values that range from 0.00 to 0.05. According to hypothesis 1, RPA does have a positive and significant influence on competitive advantage (CA). The findings of this study are consistent with the findings of the investigation carried out by (Cooper et al., 2021). The coefficient value 0.458, equivalent to 45.8%, represents the degree to which the RPA variable impacts CA. This percentage demonstrates that a rise of one unit in the RPA variable can result in a rise of 45.8 percentage points in the CA value. Robotic Process Automation (RPA) can significantly affect a company's competitive advantage. By automating routine, repetitive, and time-consuming tasks, RPA can free employees to focus on higher-value activities, such as innovation, creativity, and customer service. This can lead to increased productivity, efficiency, and cost savings, ultimately translating into a competitive advantage for the company. RPA can also help companies improve their speed and accuracy, reducing the risk of errors and increasing the speed of response to customer needs. This can help companies to gain an edge over their competitors, particularly in industries where speed and accuracy are critical factors. Additionally, RPA can help companies quickly adapt to changing market conditions, customer needs, and regulatory requirements. This can help companies to stay ahead of their competitors by being more agile and responsive to the changing business environment. However, it is essential to note that RPA is not a panacea for all business problems, and companies need to carefully evaluate the costs and benefits of implementing RPA. Moreover, RPA is a process that requires more than a one-time implementation process and requires continuous maintenance and updating to keep up with the evolving business requirements.

The second independent variable, the DBS variable, has a P-Value that ranges from 0.000 to 0.05. It says that the DBS variable has a beneficial and significant effect on CA. The findings of this investigation are consistent with the findings of the studies conducted by (Chi et al., 2018; Zhao et al., 2015). Therefore, hypothesis 2 is validated; an increase of one value in DBS can increase to 0.209 or 20.9% in the CA value. A digital business strategy uses technology to create new business models, enhance customer experience, optimize operations, and increase efficiency. Digital technologies can help companies to be more agile and responsive to changing market conditions. This can help them to adapt to new challenges and seize new opportunities quickly. By doing so, companies can differentiate themselves from their competitors and

capture new market opportunities. A well-executed digital business strategy can provide companies with a competitive advantage by enhancing customer experience, increasing operational efficiency, fostering innovation, enabling agility, and supporting data-driven decision-making.

The P-Value for the third independent variable, which is digital business initiatives (DTI), is 0.000, less than 0.05. It has been stated that the DTI variable has a favorable and significant effect on competitive advantage. According to the third hypothesis, or H3, this assertion is correct: DTI does have a positive and significant effect on a company's competitive edge. The findings of this study are consistent with the findings of a study carried out by (Furjan et al., 2020). The size of the influence of the DTI variable on CA corresponds to the coefficient of 0.208, equal to 20.8%. This percentage demonstrates that a change of only one value in the DTI variable can result in a 20.8% rise in the CA value. Digital transformation involves leveraging digital technologies to change how a company operates fundamentally, interacts with customers, and creates value. By doing so, companies can gain a competitive edge in the marketplace. Digital technologies can help companies to collect, analyze, and leverage data to make better-informed business decisions. This can help them to gain a competitive advantage by identifying new market opportunities, improving customer experiences, and optimizing operations. Digital transformation initiatives can provide companies with a competitive advantage by enhancing customer experience, increasing operational efficiency, fostering innovation, enabling agility, and supporting data-driven decision-making. However, it is essential for companies to carefully plan and execute their digital transformation initiatives to ensure that they achieve the desired outcomes and avoid potential pitfalls.

The market orientation variable (MO) has a P value of 0.000 <0.05, so it is stated that the MO variable has a positive and significant effect on CA. This statement is by the third hypothesis, H4: the MO variable positively and significantly impacts competitive advantage. The results of this study are the same as the results of a survey conducted by (Talaja et al., 2017; Talaja et al., 2017 and Herman et al., 2018). The magnitude of the influence of the MO variable on CA corresponds to the coefficient of 0.228 or 22.8%. This percentage shows that an increase of 1 value in the MO variable can increase the CA value by 22.8%. Market orientation helps companies to understand their customers' needs, preferences, and behaviors. This can help them develop products and services that better meet customer conditions, increasing customer satisfaction and loyalty. Companies can identify unique selling points that differentiate their products and services by understanding the market and its competitors. This can help them gain a competitive advantage by offering something their competitors do not. Market orientation makes companies more adaptable and responsive to changing market conditions. This can help them to quickly adapt to new challenges and seize new opportunities, giving them a competitive edge over less adaptable competitor.

Moderation of market orientation (MO) on the three independent variables has a different impact. MO variable restraint in the RPA variable strengthens its influence on sustainability performance. The significant value of the P-Value of RPA*MO is 0.000 or <0.5, so it is by H5. Statement of the fifth hypothesis, market orientation moderation strengthens the effect of RPA implementation on competitive advantage. The results of data processing show significance but have a different direction. The magnitude of the moderating influence of MO on RPA on CA has a coefficient value of -0.044 or equivalent to -4.4%. RPA can automate several tasks and activities that previously required human intervention. This can reduce operational costs and production time and increase the accuracy and speed of data processing. However, RPA implementation alone will only provide a competitive advantage if the right market orientation strategy supports it. A good market orientation can help companies to understand customer needs and wants and identify competition in the market. By understanding the market well, companies can develop business strategies that are more effective and lead to competitive advantages. Market orientation can moderate the

relationship between RPA and competitive advantage by ensuring that companies use RPA technology to meet customer needs and maintain a strong position in the market. By having a strong market orientation, companies can optimally exploit the potential of RPA to improve customer experience, reduce operational costs, increase efficiency, and develop innovations.

Digital business strategy (DBS) moderated by market orientation (MO) strengthens the influence of DBS variables on competitive advantage. In table 4.6, the magnitude of the DBS*MO moderation P value is 0.018 or <0.05. H6 states that market orientation strengthens the influence of digital business strategy positively and significantly, so H6 is accepted. The magnitude of the effect of the MO variable reinforces DBS on CA according to the coefficient of 0.092 or 9.2%. This percentage shows that an increase of 1 in the value of the MO variable strengthens DBS and can increase the value of CA by 9.2%. Digital business strategy and market orientation can affect a company's competitive advantage. However, the influence of the two can vary depending on how they interact with each other. In this context, a digital business strategy can provide a competitive advantage through digital technology to improve operational efficiency and customer experience and open up new markets. However, the competitive advantage that results from a digital business strategy can be affected by how well a company adopts a market orientation. Market orientation can moderate the relationship between digital business strategy and competitive advantage. By adopting a market orientation, companies can focus more on customer needs and utilize digital technology to meet those customer needs. On the other hand, without adopting a market orientation, one can use digital technology without regard to customer needs, which can reduce the potential for competitive advantage that can be generated.

Market orientation moderation (MO) in digital transformation initiatives (DTI) has a P-Value of -0.891 or > 0.05, and it is stated that H7 is rejected. DTI*MO moderation weakens the impact of digital transformation initiatives on competitive advantage and has a coefficient value at DTI 0.005 or equivalent to 5%. There is a substantive relationship between digital transformation initiatives and competitive advantage, which can be moderated by market orientation. In today's digital era, digital transformation initiatives are becoming increasingly important for companies to compete in an increasingly competitive market. By adopting digital technology and changing how they work, companies can improve efficiency, product and service quality and create added value for their customers. However, more than digital transformation initiatives are needed to ensure a competitive advantage. Market orientation is also critical in achieving a competitive advantage. Companies with a strong market orientation tend to be more responsive to changes in the market, understand their customers' needs better, and are better able to produce high-quality products and services. A strong market orientation also enables companies to use digital technology to achieve a competitive advantage. By understanding their market and customer needs, companies can use digital technology to develop products and services that are more targeted and more effectively meet customer needs.

Table 4: Sensitivity Test

Description	Prediction	Model 1 - Old		Model 2 - New	
		Coefficient	P Values	Koefisien	P Values
RPA -> CA	+	0,442	0,000*	0,458	0,000*
MO*RPA -> CA	+	-0,067	0,008*	-0,044	0,000*
R Square			0,801		0,772
R Square Adjusted			0,800		0,771

Table 4 shows model - 1 is a regression test carried out without using a new dimension in RPA. The processing results show that RPA affects CA, moderated by market orientation, strengthening the effect of RPA implementation on competitive advantage. The P value for RPA → CA is 0.000 > 0.05, so it is declared influential with a coefficient of 0.442. While the value of the P-Value of MO*RPA -> CA is 0.008 > 0.05, it is stated that it has an effect with a coefficient value of –0.067. Table 4 model section - 2 with Novelty shows the results of statistical tests with new dimensions. Where are the five dimensions of RPA according to the measurements used in Cooper et al. (2021) was tested again after being given an additional dimension as an update. The results show that after updating, the P value for RPA → CA is 0.000 > 0.05. It is stated that it affects the coefficient value increasing to 0.458. While the value of the P-Value of MO*RPA -> CA is 0.000 > 0.05, it is stated that it has an effect with the coefficient value decreasing to –0.044.

5. Conclusions

This research examines the relationship between implementing robotic process automation (RPA), digital business strategy, and digital transformation on competitive advantage. The study results show that implementing robotic process automation (RPA), digital business strategy, and digital transformation significantly affects a company's competitive advantage. This research shows that there are lessons that can be taken from companies that have implemented and will implement RPA, use digital business strategies, and carry out digital transformation. This learning can prepare the company to have an optimal impact and create competitiveness. Several banks operating in Indonesia already have RPA, use digital business strategies, and implement a digital transformation, primarily when their parent companies have implemented their use in their base of operations. Leaders in their industry can see the potential of RPA. The rapid adoption of RPA and their decision to build a team of RPA experts has benefited the company. And not only that, but they also have more time to strategize about the future of work in the digital transformation era. They can support their workers in transition, moving them to tasks that are more rewarding than arduous data entry tasks. For this reason, RPA is very suitable for Indonesia. These findings can be generalized to other emerging markets because Indonesia is a developing country market.

This research has some limitations that need to be addressed. Firstly, the subjectivity of the respondents in answering the questionnaire is a potential limitation. Since the respondents filled out the questionnaires via email without any guidance, there is a possibility of respondent subjectivity towards the questions asked. Secondly, the data received from 840 respondents cannot be processed immediately as some respondents may not meet the necessary qualifications. Additionally, the presence of outlier data and the uneven distribution of samples between manufacturing companies listed on the IDX and non-IDX is also a limitation. These limitations need to be addressed in future studies to increase the validity and reliability of the research findings.

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