International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 8, 2025
https://theaspd.com/index.php

Firm Specific Dynamic Capability Reconfiguration For Enhancing Big Data Analytics Sustained Value: A Perspective Of RBV-Theory

Christian Herdinata [1], Wiliam Santoso [2*], Fransisca Desiana Pranatasari [3], Tommy Christian Efrata [4]
[1,2,4]School of Business and Management, Universitas Ciputra, Surabaya, Indonesia
[3]Faculty of Econonmics, Sanata Dharma University, Yogyakarta, Indonesia
Email: christian.herdinata@ciputra.ac.id [1], william.santoso@ciputra.ac.id [2*], fr.desiana@gmail.com [3], tommy.christian@ciputra.ac.id [4]

Abstract
Technological resources are developing rapidly in global competition driven by big data analytics. Therefore, to respond to changes and developments, companies need to reshape their specific dynamic capabilities. This study adopts Resource-Based View Theory as a solution to address existing problems. The concepts used in this study include: Firm-Specific Dynamic Capability Reconfiguration, Strategic Role of BDA, Strategic Planning, Organizational Agility, Competitive Maneuvering, and BDA Sustained Value. The specific concept used to address the problems in this study is Firm-Specific Dynamic Capability Reconfiguration. This is a reshaping of a company's specific dynamic capabilities as measured by the dimensions of technological innovation capabilities and absorptive capacity, which reflect the ability to innovate, absorb, and utilize information technology in the form of big data analytics. The findings show direct and indirect effects of the relationships between existing variables. The effect of Strategic Role of BDA on Firm-Specific Dynamic Capability is significant. The effect of Firm-Specific Dynamic Capability on BDA Sustained Value is significant. The effect of Organizational Agility on BDA Sustained Value is significant. The effect of Firm-Specific Dynamic Capability on Organizational Agility was insignificant. The effect of the Strategic Role of BDA on BDA Sustained Value through Firm-Specific Dynamic Capability was significant. Furthermore, the effect of the Strategic Role of BDA on Organizational Agility through Firm-Specific Dynamic Capability was not significant. On the other hand, the effect of Firm-Specific Dynamic Capability on BDA Sustained Value through Organizational Agility was not significant.

Keywords: *Firm-Specific Dynamic Capability Reconfiguration; Strategic Role of BDA; Strategic Planning; Organizational Agility; Competitive Maneuvering; BDA Sustained Value*

1. INTRODUCTION

The strategic role of big data analytics (BDA) is important because it is a significant differentiator between high-performing and low-performing organizations (Chen et al., 2012; Loebbecke & Picot, 2015; Wamba et al., 2017). In addition, BDA with its very large data volume can help in understanding the social environment and company dynamics (Loebbecke & Picot, 2015). Another important thing is BDA as a supporting factor in carrying out innovation (Shollo & Galliers, 2016). Several research results reveal developments in BDA, including: Agarwal & Dhar (2014); Erevelles et al., (2016); Fosso Wamba et al., (2015); and Günther et al., (2017). Research supporting the strategic role of BDA has been conducted by several researchers, including: Gupta et al. (2018); Kwon et al., (2014); Sivarajah et al., (2017) stated that Business Data Analysis (BDA) has emerged as a field of interest in business intelligence and analytics. Furthermore, BDA can be used by companies to analyze complex data to improve company performance (H. Chen et al., 2012). Furthermore, BDA can also help companies improve business processes (Chau & Xu, 2012; Loebbecke & Picot, 2015; Popovic et al., 2018). BDA can also be utilized by top management to support strategic decisions (Chen et al., 2015). Therefore, the strategic role of BDA, such as business intelligence and business analytics, has been the object of study by several researchers (Elbashir et al., 2013; Işik et al., 2013; Oliveira et al., 2012; Popovič et al., 2012). The findings of several previous researchers regarding the strategic role of BDA on the sustainability value of BDA show inconsistencies. Shabbir & Gardezi (2020) found that the application of big data analytics has a significant impact on organizational performance. Conversely, Côrte-Real et al. (2019) found that the strategic role of big data analytics did not significantly impact strategic performance or financial performance. Several other researchers have found that many companies pursue value from BDA but are unable to achieve their strategic goals (Mithas et al., 2013).

This study adopts the resource-based view theory (RBV) as a solution to address these problems. This theory explains how companies can achieve competitive advantage by analyzing and developing their existing resources (Barney, 1991). There are several reasons for using the RBV theory: first, companies with existing resources can gain a competitive advantage (Dyer & Singh, 1998). Second, all assets, capabilities, organizational processes, company attributes, knowledge, and so on can be used by companies to understand and implement strategies to increase efficiency and effectiveness (Barney, 1991). Third, competitors try to imitate, reproduce, or replace a company's resources with resources that provide the same competitive advantage (Barney, 1995). The concepts used in this study include: firm-specific dynamic capability reconfiguration (FDCR), the strategic role of BDA (SR), organizational agility (OA), and BDA sustained value (SV). A specific concept used to address the inconsistency of findings in the research gap is firm-specific dynamic capability reconfiguration. This is the re-establishment of a company's specific dynamic capabilities, measured by the dimensions of technological innovation capabilities and absorptive capacity, which reflect the ability to innovate and absorb and utilize information technology in the form of big data analytics. Indicators used for this new concept include: developing firm-specific capability building, implementing business process alignment, creating innovation exploitability reorientation, and the ability to make goal adjustments. The presence of this concept is a novelty and a scientific contribution of this research in order to bridge the Strategic Role of BDA to BDA Sustained Value because of the dynamics that occur, among others: new behavior (shaped by information from media and social media), technologies (cloud-based), the millennial workface (new attitude, expectation, and ways of working), mobility (work anytime, anywhere, and on any device), globalization (no boundaries, borderless). Therefore, the objectives of this research are: first, to address the research gap in the relationship between the strategic role of BDA to the sustainable value of BDA by testing empirically through the variable of firm-specific dynamic capability reconfiguration. Second, to provide a conceptual overview related to firm-specific dynamic capability reconfiguration with the RBV theory approach. The context of this study is Indonesian companies that use big data analytics in their operations. The development of big data in Indonesia is influenced by the global growth of big data (Boyd & Royer, 2012; Diebold, n.d.; Kitchin, 2014). Furthermore, the growth of big data in Indonesia is also supported by the abundance of digital data accumulated in the telecommunications and banking sectors (Financial Services Authority, 2017) and the increasingly established internet penetration in Indonesia (GSMA, 2018; International Telecommunication Union, 2017).

2. MATERIALS AND METHODS

Data were collected from respondents, namely owners, directors, or managers experienced in using big data analytics in running company operations. Data were collected in Indonesia through an online survey by completing a questionnaire. The sampling technique used convenience sampling using the respondent-driven sampling method (Al-Jabri & Roztocki, 2015), which was conducted by sending emails to potential respondents, who were also asked to forward the information to their colleagues. The collected questionnaire data corresponded to the research sample size of 130, with the characteristics of the respondents.

The measurement of the variable indicators used was adopted and adapted from several studies. The strategic role of BDA was adapted from research by Côrte-Real et al. (2019) with three indicators. Organizational agility was adapted from research by Mikalef & Pateli (2017) with six indicators. BDA sustained value was adapted from research by Côrte-Real et al. (2019) with six indicators. Firm-specific dynamic capability reconfiguration was adapted from research by Côrte-Real et al. (2019). (Cheng et al., 2014); Achtenhagen et al. (2013) with four indicators. Furthermore, all indicators were developed in the form of a questionnaire with a score of 1 to 7 points which was used as a guideline in answering the existing statements.

3. RESULTS

Instrument testing and direct effect testing

To begin data analysis, this research carry out validity and reliability test by measuring convergent validity and construct reliability. the total sample of 130 people measured using a questionnaire showed the following results. Table 1 shows the measurement results of the research instruments. The validity test is conducted by referring on lambda loading value which requires the lambda loading value to be > 0.5. all indicators in the questionnaire statements were declared valid. The convergent validity test must meet

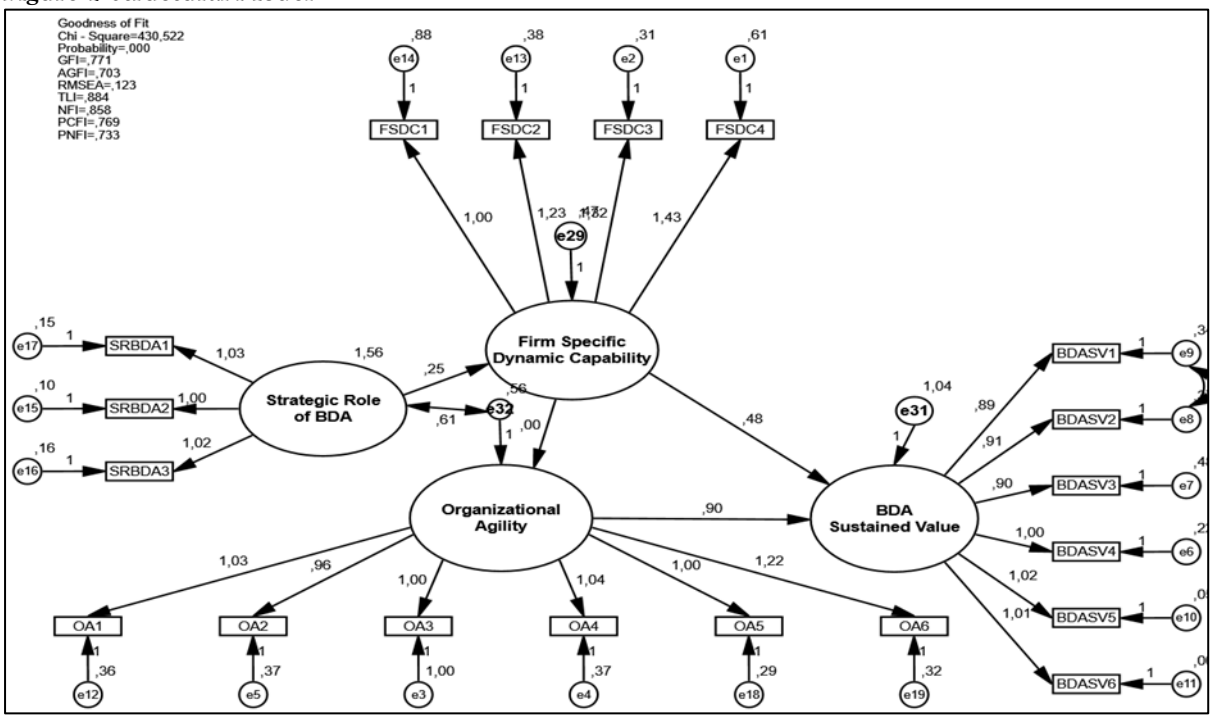
the AVE value ≥ 0.50 and all items in the questionnaire are declared satisfactory. Finally, the construct reliability test (CRI) requires the CRI value to be ≥ 0.70 and all variables to be declared reliable.

Table 1. Research Instrument Measurements

Variables & Indicators	Lambda Value	Critical Ratio ≥ ± 1.96	Convergent Validity (AVE) ≥ 0.50	Construct Reliability (CRI) ≥ 0.70
STRATEGIC ROLE OF BDA			1.034	1.011
SRBDA1	1.027	27.204		
SRBDA2	1.000	0		
SRBDA3	1.024	26.819		
ORGANIZATIONAL AGILITY			1.106	1.016
OA1	1.029	6.965		
OA2	0.995	6.808		
OA3	1.000	0		
OA4	1.041	6.97		
OA5	1.003	7.102		
OA6	1.223	7.312		
FIRM SPECIFIC DYNAMIC CAPABILITY RECONFIGURATION			1.577	1.102
FSDCR1	1.000	0		
FSDCR2	1.232	7.439		
FSDCR3	1.323	7.643		
FSDCR4	1.428	7.312		
BDA SUSTAINED VALUE			0.917	0.985
BDASV1	0.913	18.52		
BDASV2	0.903	18.21		
BDASV3	1	16.54		
BDASV4	1.02	0.00		
BDASV5	1.008	28.56		
BDASV6	0	27.87		

Source: Processed data, 2025

Figure 1 Structural Model



Source: Processed data, 2025

Figure 1 explains the relationship between the variables in the research model. This model can see the estimated path coefficient (path coefficient) and p-value (significance level). This image of the research model is accompanied by the model testing results which are contained in the following model testing Table 2:

Table 2. Model Tesing

Goodness of Fit Test	Cut-off Value	result	conclusion
Chi-square	Expected small	430.522	Marginal Fit
Tucker Lewis Index	≥0.90	0.884	Good Fit
Parsimony Normed Fit Index	≥0.50	0.733	Good Fit
Parsimony Comparative Fit Index	≥0.70	0.769	Good Fit
Goodness Fit Index	≥0.90	0.771	Marginal Fit
Adjusted Goodness Fit Index	≥0.90	0.703	Marginal Fit
Normed Fit Index	≥0.90	0.858	Marginal Fit

Source: Processed data, 2025

Based on Table 3, the results show that five tests concluded that the model was fit and responsive to the index change. According to Hair et al. (2019), a decision of three to four fit indices is sufficient to provide evidence of model adequacy. Therefore, it can be said that the model is appropriate or suitable for the model.

Table 3 Direct Effect Testing

Hypothesized relationship	Estimate	S.E.	C.R.	P	Conclusion
Strategic Role of BDA => Firm Specific Dynamic Capability	0,252	0,060	4,206	0,000	Significant
Firm Specific Dynamic Capability => BDA Sustained Value	0,477	0,149	3,211	0,001	significant
Organizational Agility => BDA Sustained Value	0,895	0,176	5,087	0,000	significant
Firm Specific Dynamic Capability => Organizational Agility	0,000	0,086	0,001	0,999	Not significant

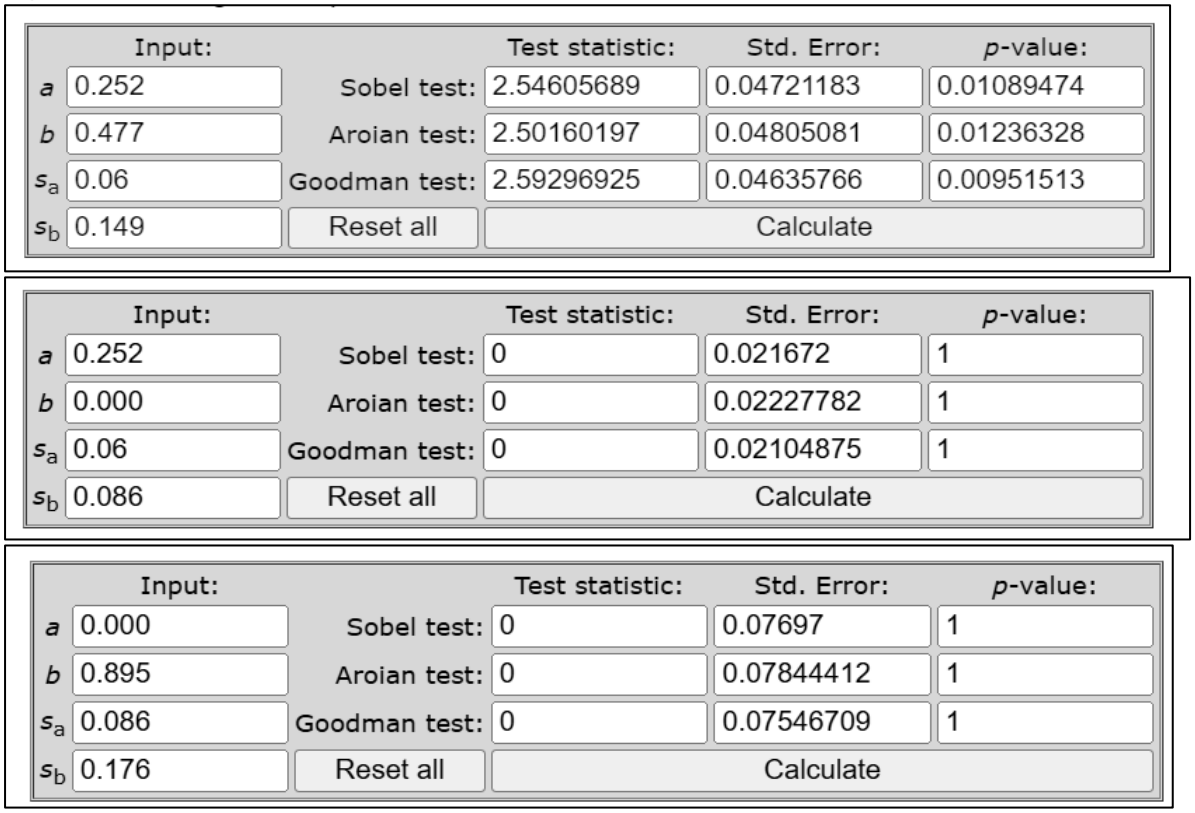
Source: Processed data, 2025

Based on Table 3 of the direct effect test above, three hypotheses are proven to have a significant effect as they meet p-values ≤ 0.05 (α = 5%), so H_0 is rejected and H_a is accepted. But, there is one hypothesis rejected. Hypothesis 1 results in p-values ≤ 0.05 (α = 5%) such that H_0 is rejected and H_a is accepted. Thus, the strategic role of BDA influences the Firm Specific Dynamic Capability. This means that the higher the strategic role of BDA of financial companies, the more firm specific dynamic capability of companies can have. When a business implement better strategic role of BDA, it can enable business to have specific dynamic capability based data analysis they have on strategic role of BDA. Hypothesis 2 results in p-values ≤ 0.05 (α = 5%) such that H_0 is rejected and H_a is accepted. Thus, the firm specific dynamic capability influences BDA sustained value. Thus, firm specific dynamic capability can enable and align with BDA sustained value of business. Hypothesis 3 results in p-values ≤ 0.05 (α = 5%) such that H_0 is rejected and H_a is accepted. Thus, organizational agility influences BDA sustained value. Thus, organizational agility can create resilience and data driven integration, which is consistent with BDA sustained value of business. Hypothesis 4 results in p values ≤ 0.05 (α = 5%) such that H_0 is accepted and H_a is rejected. Thus, the firm specific dynamic capability does not influence the organizational agility. It is argued this result is because of misalignment between strategic level initiative of dynamic capability and daily operational level of organizational agility. Thus, business needs to pay attention on organizational support, such as culture and shared value.

Mediation Effect Test Results

In the process of testing the mediation effect, the Sobel test is used. In the Sobel test, the mediation effect is said to be significant when it produces a calculated t-value greater than 1.96 or a p-value less than 5%. Figure 2 shows the results of the indirect effects tests carried out as part of this research using the Sobel test for H_5, H_6 and H_7 sequentially:

Figure 2 Sobel Test Result



Input:		Test statistic:	Std. Error:	*p*-value:
a 0.252	Sobel test:	2.54605689	0.04721183	0.01089474
b 0.477	Aroian test:	2.50160197	0.04805081	0.01236328
s_a 0.06	Goodman test:	2.59296925	0.04635766	0.00951513
s_b 0.149	Reset all	Calculate		

Input:		Test statistic:	Std. Error:	*p*-value:
a 0.252	Sobel test:	0	0.021672	1
b 0.000	Aroian test:	0	0.02227782	1
s_a 0.06	Goodman test:	0	0.02104875	1
s_b 0.086	Reset all	Calculate		

Input:		Test statistic:	Std. Error:	*p*-value:
a 0.000	Sobel test:	0	0.07697	1
b 0.895	Aroian test:	0	0.07844412	1
s_a 0.086	Goodman test:	0	0.07546709	1
s_b 0.176	Reset all	Calculate		

Source: Processed data, 2025

The next process is to enter the Sobel test results into Table 4 Indirect effect. This is the basis for carrying out the process of detecting the influence of mediation. Researchers will then compare the direct and indirect effects with the basis of reflective decision-making (Hair et al., 2019).

Table 4 Indirect Effect Testing

Indirect Effect	T – statistics (Sobet test)	P value (Sobel test)	Significance of mediator	The nature of mediation
Strategic Role of BDA => Firm Specific Dynamic Capability => BDA Sustained Value	2.546	0.01	significant	mediating
Strategic Role of BDA => Firm Specific Dynamic Capability => Organizational Agility	0.000	1	Not significant	Not mediating
Firm Specific Dynamic Capability => Organizational Agility => BDA Sustained Value	0.000	1	Not significant	Not mediating

Source: Processed data, 2025

Based on Table 4, it shows the results of mediation effect detection. From the table above, the results of the indirect effects test can be explained as follows: (1) The indirect influence via mediation of Firm Specific Dynamic Capability from Strategic Role of BDA to BDA Sustained Value is also known to be significant, so mediation of Firm Specific Dynamic Capability is proven; (2) The indirect influence via mediation of Firm Specific Dynamic Capability from Strategic Role of BDA to Organizational Agility is not significant, the nature of mediation being a no mediation; (3) The indirect influence via mediation of Organizational Agility from Firm Specific Dynamic Capability to BDA Sustained Value is not significant, the nature of mediation being a no mediation.

4. DISCUSSION

Companies that implement strategic behavior are believed to be able to improve their financial and strategic performance (Herdinata et al., 2025). Innovation, BDA utilization, reconfiguration, digital transformation, adaptive agility, playing a strategic role in environmental changes, and other actions aligned with this strategy are called strategic behavior. This is in line with previous findings that strategic behavior is usually implemented in order to achieve strategic performance (Abuzaid, 2018; Baird, 2017). Strategic roles must be taken into account so that the role of implementers and organizational leaders can accurately determine their strategic performance in order to concretely improve their commercial performance (Herdinata et al., 2025). Many factors can increase Big Data Analytics Sustained Value, so the dynamics of each company may differ from one another. By utilizing Firm-Specific Dynamic Capability Reconfiguration in accordance with the concept in RBV theory, the dynamics experienced by companies can be properly resolved, resulting in an increase in BDA Sustained Value. New behaviors in the process of adopting relevant information from media and social media, as well as the adoption of cloud-based technologies, demand precision in the strategic role taken by managers. Furthermore, globalization, which forces a situation without boundaries and borders, requires firm-specific dynamic capability reconfiguration to prepare for strategic competition between companies.

The study found that H1, H2, and H3 were supported, while H4 was not supported. In H1, the strategic role of BDA influences firm-specific dynamic capability. This means that the higher the strategic role of BDA in a financial company, the higher the firm-specific dynamic capability the company can possess. This aligns with previous research on the strategic role of financial companies influencing strategic maneuvers (Herdinata et al., 2025). Strategic roles demonstrate their role in facilitating significant changes in business processes, business improvement, and facilitating innovative strategic leadership (Côrte-Real et al., 2019). Firm-specific dynamic capability is a company's unique ability to reconfigure resources based on organization-specific information and experience. When a manager drives dynamic change by attempting integration and adjustment within the framework of innovative leadership (Côrte-Real et al., 2019), the company directly engages in sensing, seizing, and reconfiguring activities, thereby logically establishing firm-specific dynamic capability. This aligns with the findings of Cheng et al. (2014) and Achtenhagen et al. (2013), namely that reconfiguration and dynamic capability are formed through continuous adaptation triggered by data-driven strategic change.

H2 is supported in this study. Thus, firm-specific dynamic capability influences BDA Sustained Value. Therefore, firm-specific dynamic capability can enable and align with the BDA Sustained Value of a business. Firm-specific dynamic capability supports companies in increasing corporate value sustainably, not just in the short term or for a short time, but also to the point of sustainability. Without firm-specific dynamic capability, companies can only achieve temporary advantages due to their inability to convert resources into long-term advantages (Cheng et al., 2014). Firm-specific dynamic capability functions as a mechanism that activates value analytics (Côrte-Real et al., 2019). In short, firm-specific dynamic capability makes BDA value sustainable (Achtenhagen et al., 2013). Innovation capability, particularly strategic maneuvering, is positively related to the strategic performance of financial companies (Herdinata et al., 2025).

H3 is supported in this study. This means that the higher a company's organizational agility, the higher its BDA Sustained Value. These findings align with several previous studies that suggest companies capable of responding to business changes appropriately, adaptively, and agilely can achieve innovative business improvements, thereby improving their strategic performance (Herdinata et al., 2025). The RBV theory also believes that organizational resources are constantly changing, and therefore, organizations require strong adaptability (Miles, 2012). Strategic maneuvering in financial firms refers to the organization's agility and flexibility (Kornelius et al., 2020, 2021), meaning businesses must be able to detect and respond quickly to threats and opportunities (Côrte-Real et al., 2019; Ejigu & Desalegn, 2023). This is consistently applied to achieve strategic performance (Abuzaid, 2018; Baird, 2017). It is considered a learning tool that enables managers and organizational leaders to develop their business awareness and skills innovatively (Fahed-Sreih & El-Kassar, 2017; Kornelius et al., 2020, 2021). This finding is also consistent with Mikalef & Pateli, 2017, who emphasized that agility is a key factor in transforming analytical capability into organizational value. Furthermore, Côrte-Real et al. (2019), Achtenhagen et al. (2013), and Cheng et al. (2014) emphasized that the adaptability and reconfigurability inherent in agile organizations enable the value of BDA not only to emerge immediately but also to persist over the long term. Thus, agility serves as a critical driver in ensuring the sustainability of BDA benefits.

The study found that H4 was not supported, meaning firm-specific dynamic capability had no effect on organizational agility. In this case, increasing firm-specific dynamic capability did not lead to a consistent increase in organizational agility. This finding is inconsistent with previous research that suggests that creating a company's uniqueness requires organizations to be creative and innovative in their maneuvers to achieve organizational agility to adapt to environmental turbulence (Herdinata et al., 2025). Meanwhile, in the RBV concept, organizations must create unique resources through agility to compete with their competitors (Miles, 2012). This difference in findings is unexpected but can still be explained conceptually by RBV theory as an important concept in management strategy. It is important to note that not all dimensions of dynamic capability directly translate to agility. The dimensions of dynamic capability are sensing, seizing, and reconfiguring (Miles, 2012). Reconfiguration, when a company needs to have the ability to reorganize assets, is more appropriate for the impact on efficiency or internal structure, rather than directly on market response speed. Some dimensions of dynamic capabilities are positively related to portfolio agility, not generic or general agility, and sometimes even play a mediating role (Bechtel et al., 2023). Dynamic capabilities require a complete mechanism for adapting, integrating, and reorganizing resources in the face of change so that they can agilely contribute to the company's sustainability (Heikinheimo et al., 2025).

The findings concluded that H5 was supported. Therefore, the strategic role of BDA significantly influences BDA sustained value through firm-specific dynamic capability, with partial mediation. This finding indicates that the strategic role of BDA significantly influences BDA sustained value, both directly and indirectly through firm-specific dynamic capability. This is consistent with (Côrte-Real et al., 2019), who argue that the strategic role of BDA directly enhances organizational value creation. However, when firm-specific dynamic capability is added to this strategic initiative as a mediator (Achtenhagen et al., 2013; Cheng et al., 2014), organizations are better able to translate BDA insights into long-term sustainable value. Thus, while the strategic role of BDA can generate value on its own, the presence of firm-specific dynamic capability extends this firm value, leading to partial rather than full mediation. Within the context of the strategic role of BDA, companies are more likely to facilitate critical process changes, enable innovative applications, and integrate analytics into products and services over the long term.

The study found that H6 and H7 were not supported. The strategic role of BDA on organizational agility through firm-specific dynamic capability was insignificant. Therefore, firm-specific dynamic capability was unable to mediate the influence of the strategic role of BDA on organizational agility. Other findings also found that the influence of firm-specific dynamic capability on BDA sustained value through organizational agility was insignificant. This means that organizational agility was unable to mediate the influence of firm-specific dynamic capability on BDA sustained value. This finding further clarifies that not all strategic capabilities automatically emerge as tactical capabilities. The strategic role of BDA facilitates crucial business process changes, strategic leadership, and the integration of data-driven innovation into products and services (Côrte-Real et al., 2019). This usually supports long-term strategic transformation, rather than responsiveness as the essence of organizational agility. Therefore, although firm-specific dynamic capability contributes to strategic improvement (Achtenhagen et al., 2013; Cheng et al., 2014; Côrte-Real et al., 2019), it is difficult to relate to the context of organizational agility, a construct that better explains rapid operational responsiveness in the short term (Mikalef & Pateli, 2017), resulting in an insignificant relationship.

Therefore, the findings of this study have successfully addressed the research objective by filling the research gap in the relationship between the Strategic Role of BDA and BDA Sustained Value by empirically testing it through the variable firm-specific dynamic capability reconfiguration. As previously stated, firm-specific dynamic capability mediates the role of the Strategic Role of BDA in BDA Sustained Value. A higher Strategic Role of BDA in a financial company can enhance BDA Sustained Value through firm-specific dynamic capability, which reflects the company's unique ability to create and achieve specific goals. In relation to RBV, this finding is consistent because firm-specific dynamic capability is able to recombine resources to improve the possibility of inappropriate company strategies so that BDA Sustained Value is increasingly aligned and increased. In line with the RBV concept, that companies are able to implement appropriate strategies to be used in increasing efficiency and effectiveness through the selection of specific resources that are superior, they can compete with other companies and achieve their competitive advantage (Barney, 1991, 1995; Dyer & Singh, 1998). This finding is effectively and sustainably appropriate for adoption by companies based on big data analytics in carrying out company operational activities so that BDA Sustained Value also increases.

5. CONCLUSIONS

This study shows the direct influence of several relationships between variables. The effect of the Strategic Role of BDA on Firm Specific Dynamic Capability is significant. The effect of Firm Specific Dynamic Capability on BDA Sustained Value is significant. The effect of Organizational Agility on BDA Sustained Value is significant. The effect of Firm Specific Dynamic Capability on Organizational Agility is not significant. This study shows the indirect influence of several relationships between variables. The effect of the Strategic Role of BDA on BDA Sustained Value through Firm Specific Dynamic Capability is significant and partially mediating. Furthermore, the effect of the Strategic Role of BDA on Organizational Agility through Firm Specific Dynamic Capability is not significant. On the other hand, the effect of Firm Specific Dynamic Capability on BDA Sustained Value through Organizational Agility is not significant. The limitation of this study lies in the cross-sectional design that was determined from the beginning when starting this study. The research was conducted once on relevant and reliable respondents to fill out the big data analytics context questionnaire. Therefore, future research should conduct longitudinal studies to observe the formation of sensing-seizing-reconfiguring capabilities over time. Another point is that the generic concept of BDA capability has been successfully developed within the measurement scale of this study, but firm-specific uniqueness is likely to vary from company to company. Therefore, future research can be conducted using qualitative comparative analysis or case studies of multiple firms to enrich the variety of unique firm-specific dynamic capabilities.

Acknowledgment

Thank you to Universitas Ciputra Surabaya for support in the research process. Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work: Christian Herdinata, Fransisca Desiana Pranatasari, and Wiliam Santoso. Drafting the work or reviewing it critically for important intellectual content: Christian Herdinata, Fransisca Desiana Pranatasari, and Tommy Christian Efrata. Final approval of the version to be published: Christian Herdinata, Fransisca Desiana Pranatasari, Wiliam Santoso, and Tommy Christian Efrata. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: Christian Herdinata, Fransisca Desiana Pranatasari, Wiliam Santoso, Tommy Christian Efrata.

Ethical considerations: The authors declare no conflicts of interest.

Conflict of Interest: No potential conflict of interest was reported by the author(s).

Funding: This work was supported by Universitas Ciputra Surabaya.

REFERENCES

1. Abuzaid, A. N. (2018). Scenario planning as approach to improve the strategic performance of multinational corporations (MNCS). Business: Theory and Practice, 19, 195–207. https://doi.org/10.3846/btp.2018.20
2. Achtenhagen, L., Melin, L., & Naldi, L. (2013). Dynamics of business models - strategizing, critical capabilities and activities for sustained value creation. Long Range Planning, 46(6), 427–442. https://doi.org/10.1016/j.lrp.2013.04.002
3. Agarwal, R., & Dhar, V. (2014). Big data, data science, and analytics: The opportunity and challenge for IS research. Information Systems Research, 25(3), 443–448. https://doi.org/10.1287/isre.2014.0546
4. Al-Jabri, I. M., & Roztocki, N. (2015). Adoption of ERP systems: Does information transparency matter? Telematics and Informatics, 32(2), 300–310. https://doi.org/10.1016/j.tele.2014.09.005
5. Baird, K. (2017). The effectiveness of strategic performance measurement systems. International Journal of Productivity and Performance Management, 66(1), 3–21. https://doi.org/10.1108/IJPPM-06-2014-0086
6. Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 27(7), 1149–1166.
7. Barney, J. (1995). Looking_Inside_for_Competitive_Advantage. Academy of Management Perspectives, 9(4), 49–61.
8. Bechtel, J., Kaufmann, C., & Kock, A. (2023). The interplay between dynamic capabilities' dimensions and their relationship to project portfolio agility and success. International Journal of Project Management, 41(4). https://doi.org/10.1016/j.ijproman.2023.102469
9. Boyd, B., & Royer, S. (2012). The suitability of internal versus external successors: Relevant knowledge types in family business succession. International Journal of Management Practice, 5(4), 361–382. https://doi.org/10.1504/IJMP.2012.050315
10. Chau, M., & Xu, J. (2012). Business intelligence in blogs: Understanding consumer interactions and communities. MIS Quarterly, 1189–1216.
11. Chen, D. Q., Preston, D. S., & Swink, M. (2015). How the use of big data analytics affects value creation in supply chain management. Journal of Management Information Systems, 32(4), 4–39. https://doi.org/10.1080/07421222.2015.1138364

12. Chen, H., Chiang, R. H. L., Storey, V. C., & Robinson, J. M. (2012). Business Intelligence Research Business Intelligence and Analytics: From Big Data To Big Impact. MIS Quarterly, 1165–1188. www.freakonomics.com/2008/02/25/hal-varian-answers-your-questions/
13. Cheng, J. H., Chen, M. C., & Huang, C. M. (2014). Assessing inter-organizational innovation performance through relational governance and dynamic capabilities in supply chains. Supply Chain Management, 19(2), 173–186. https://doi.org/10.1108/SCM-05-2013-0162
14. Côrte-Real, N., Ruivo, P., Oliveira, T., & Popovič, A. (2019). Unlocking the drivers of big data analytics value in firms. Journal of Business Research, 97(June 2018), 160–173. https://doi.org/10.1016/j.jbusres.2018.12.072
15. Diebold, F. X. (n.d.). "On the Origin(s) and Development of the Term "Big Data" On the Origin(s) and Development of the Term "Big Data" *.
16. Dyer, J. H., & Singh, H. (1998). The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage. The Academy of Management Review, 23(4), 660. https://doi.org/10.2307/259056
17. Ejigu, M. E., & Desalegn, T. A. (2023). How does strategic planning influence the performance of financial institutions? An empirical study of Ethiopia. IIMB Management Review, 35(1), 26–39. https://doi.org/10.1016/j.iimb.2023.03.003
18. Elbashir, M. Z., Collier, P. A., Sutton, S. G., Davern, M. J., & Leech, S. A. (2013). Enhancing the business value of business intelligence: The role of shared knowledge and assimilation. Journal of Information Systems, 27(2), 87–105. https://doi.org/10.2308/isys-50563
19. Erevelles, S., Fukawa, N., & Swayne, L. (2016). Big Data consumer analytics and the transformation of marketing. Journal of Business Research, 69(2), 897–904. https://doi.org/10.1016/j.jbusres.2015.07.001
20. Fahed-Sreih, J., & El-Kassar, A. N. (2017). Strategic Planning, Performance and Innovative Capabilities Of Non-Family Members In Family Businesses. International Journal of Innovation Management, 21(7). \\ https://doi.org/10.1142/S1363919617500529
21. Fosso Wamba, S., Akter, S., Edwards, A., Chopin, G., & Gnanzou, D. (2015). How "big data" can make big impact: Findings from a systematic review and a longitudinal case study. International Journal of Production Economics, 165, 234–246. https://doi.org/10.1016/j.ijpe.2014.12.031
22. GSMA. (n.d.). 28999769_The-Mobile-Economy-2018.
23. Günther, W. A., Rezazade Mehrizi, M. H., Huysman, M., & Feldberg, F. (2017). Debating big data: A literature review on realizing value from big data. Journal of Strategic Information Systems, 26(3), 191–209.
24. https://doi.org/10.1016/j.jsis.2017.07.003
25. Gupta, A., Deokar, A., Iyer, L., Sharda, R., & Schrader, D. (2018). Big Data & Analytics for Societal Impact: Recent Research and Trends. In Information Systems Frontiers (Vol. 20, Issue 2, pp. 185–194). Springer New York LLC. https://doi.org/10.1007/s10796-018-9846-7
26. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate Data Analysis (Eighth Edition). Cengage Learning, EMEA. www.cengage.com/highered
27. Heikinheimo, M., Hautamäki, P., Julkunen, S., & Koponen, J. (2025). Dynamic capabilities and multi-sided platforms: Fostering organizational agility, flexibility, and resilience in B2B service ecosystems. Industrial Marketing Management, 125,
28. 179–194. https://doi.org/10.1016/j.indmarman.2025.01.006
29. Herdinata, C., Pranatasari, F. D., Santoso, W., & Sembiring, M. J. (2025). Strategic management in finance-based companies: applying the resource-based view in Indonesia. Cogent Business and Management, 12(1).
30. https://doi.org/10.1080/23311975.2025.2487835
31. International Telecommunication Union. (2017). Measuring the Information Society Report 2017 Volume 2. ICT country profiles. https://doi.org/10.3359/oz0303157
32. Işik, Ö., Jones, M. C., & Sidorova, A. (2013). Business intelligence success: The roles of BI capabilities and decision environments. Information and Management, 50(1), 13–23. https://doi.org/10.1016/j.im.2012.12.001
33. Kitchin, R. (2014). Big Data, new epistemologies and paradigm shifts. Big Data and Society, 1(1).
34. https://doi.org/10.1177/2053951714528481
35. Kornelius, H., Bernarto, I., Widjaja, A. W., & Purwanto, A. (2020). Competitive Strategic Maneuverability: The Missing Link Between Strategic Planning and Firm's Performance. International Journal of Advanced Science and Technology, 29(03), 7413–7422. https://www.researchgate.net/publication/340412274
36. Kornelius, H., Suptratikno, H., Bernarto, I., & Widjaja, A. W. (2021). Strategic Planning and Firm Performance: The Mediating Role of Strategic Maneuverability. Journal of Asian Finance, Economics and Business, 8(1), 479–486. https://doi.org/10.13106/jafeb.2021.vol8.no1.479
37. Kwon, O., Lee, N., & Shin, B. (2014). Data quality management, data usage experience and acquisition intention of big data analytics. International Journal of Information Management, 34(3), 387–394.
38. https://doi.org/10.1016/j.ijinfomgt.2014.02.002
39. Loebbecke, C., & Picot, A. (2015). Reflections on societal and business model transformation arising from digitization and big data analytics: A research agenda. Journal of Strategic Information Systems, 24(3), 149–157.
40. https://doi.org/10.1016/j.jsis.2015.08.002
41. Mikalef, P., & Pateli, A. (2017). Information technology-enabled dynamic capabilities and their indirect effect on competitive performance: Findings from PLS-SEM and fsQCA. Journal of Business Research, 70, 1–16.
42. https://doi.org/10.1016/j.jbusres.2016.09.004
43. Miles, J. A. (2012). Management and Organization Theory. Jossey-Bass.
44. Mithas, S., Lee, M. R., Earley, S., Associates, E. &, Murugesan, S., & Djavanshir, R. (2013). Leveraging big data and business analyticsIEEE. IT Professional, 15, 18–20. www.infochimps.com/press/
45. Oliveira, M. P. V. De, McCormack, K., & Trkman, P. (2012). Business analytics in supply chains - The contingent effect of business process maturity. Expert Systems with Applications, 39(5), 5488–5498.
46. https://doi.org/10.1016/j.eswa.2011.11.073
47. Otoritas Jasa Keuangan. (n.d.). OTORITAS JASA KEUANGAN REPUBLIK INDONESIA.

48. Popovič, A., Hackney, R., Coelho, P. S., & Jaklič, J. (2012). Towards business intelligence systems success: Effects of maturity and culture on analytical decision making. Decision Support Systems, 54(1), 729–739.
49. https://doi.org/10.1016/j.dss.2012.08.017
50. Popovic, A., Hackney, R., Tassabehji, R., & Castelli, M. (2018). The Impact of Big Data Analytics on Firms High Value Business Performance. Information Systems Frontiers., 20, 209-222. https://doi.org/10.1007/s10796-016-9720-4
51. Shabbir, M. Q., & Gardezi, S. B. W. (2020). Application of big data analytics and organizational performance: the mediating role of knowledge management practices. Journal of Big Data, 7(1). https://doi.org/10.1186/s40537-020-00317-6
52. Shollo, A., & Galliers, R. (2016). Towards an understanding of the role of business intelligence systems in organisational knowing. Information Systems Journal, 26(4), 339–367.
53. Sivarajah, U., Kamal, M. M., Irani, Z., & Weerakkody, V. (2017). Critical analysis of Big Data challenges and analytical methods. Journal of Business Research, 70, 263–286. https://doi.org/10.1016/j.jbusres.2016.08.001
54. Wamba, S. F., Gunasekaran, A., Akter, S., Ren, S. J.-F., & Dubey, R. (2017). Big data analytics and firm performance: effects of dynamic capabilities. Journal of Business Research, 70, 356–365. https://ro.uow.edu.au/buspapers