



## RESEARCH ARTICLE

## Ascertaining the Effect of Ambidextrous Leadership on Business Agility of the Public Companies

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ARTICLE INFO	ABSTRACT
Received: Jul 12, 2024	This paper aims to assess impact of ambidextrous leadership on firm performance and business agility. A quantitative study with cross-sectional approach by involving 113 senior leaders from 55 Indonesia Stock Exchange (IDX) listed public companies. Perceptual data was collected through a convenience approach by using online questionnaires. SmartPLS version 4.0 was used for causal statistical analysis. The results reveal that for stimulating business agility, senior leaders in leading a public company are expected to be less exploitative but more explorative. Supply chain agility plays strategic role with more significant impact on firm performance rather than the agility in marketing or operational processes in Indonesia during the COVID-19 crisis.
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### INTRODUCTION

A real experience of how VUCA world came to be is COVID-19 pandemics. It has delivered several essential changes in managing organizations as well as leading people in the business organization [1–3]. VUCA world as a buzzword in management was initially stated in the 1990s at military academic in USA. The term was popularized in a book [4] with title *Leaders Make the Future*. Previous literature has described volatile-uncertain-complex-ambiguous (VUCA) as chaotic situation with highly instable, undefined, multifaceted and confused conditions. The term is connected with fog or haze in a war to illustrate the chaotic situation in battlefield of modern business [5]. The COVID-19 pandemic has brought human civilization into a volatile condition. All affairs have changed because of a flu-like epidemic (volatility), lack of guidance in applying new regulations (uncertainty), generating interrelated new problems (complexity) and full of ambiguity overcoming measures. Therefore, leading a company as business organization in the VUCA world demands highly different approach rather than leading a company in the normal world. Business leaders are demanded to be capable to lead as well as to manage the company with a high level of agility [6,7].

Between the COVID-19 pandemic and market returns of public companies in Indonesia, there was a negative relationship significantly [8–10]. Public companies had experienced a cumulative negative value of the average abnormal return, especially in the property, trade, service, financial, and investment sectors as the most affected sector. [8]. Comparing financial performance before and

during the pandemic, public companies in Indonesia have experienced substantial decrease in the short-term activity and profitability ratio [11]. Based those studies this paper is interested to examine the effect of leadership and organizational capability on the firm performance in public companies.

Dynamic capabilities theory [12–14] is used as the underpinning theory. As business organizations, public companies have two types of organizational capabilities - ordinary or 'zero order' and dynamic capabilities [15]. For enabling operational effectiveness, ordinary capabilities is needed. Meanwhile for dealing with dynamic changes, dynamic capabilities enable the public companies in sensing, seizing and reconfiguring for new business opportunities [13–15]. Many studies have explained that ambidexterity or agility as kinds of dynamic capability [12,16–19]. That's why this paper needs to examine the effect of ambidexterity - especially ambidextrous leadership as well as business agility on firm performance.

Previous studies on ambidexterity [20,21] suggest that there are three important things related to leading a business company in dynamic changes: (a) ambidexterity makes a strong effect on organizational survival-ability, innovation, sales growth, firm performance, and market valuation; (b) ambidexterity is more applicable for organizations which are operating in a full of uncertainty environment; (c) ambidexterity is more suitable for corporation or large size companies which possess strong financial resources rather than for small and medium size ones with lack of financial resources. Based on the ideas, this article attempts to elaborate implementation of ambidextrous leadership and its effects on firm performance as well as on business agility in leading a public company which is already listed on IDX.

**Firm performance** is defined as organizational achievement in many aspects [22]- either in financial and/or non-financial aspects (e.g. market size, internal capability, and learning). This article firm performance is limited to financial aspect and market size and growth which are reflected into four indicators: (a) ROI growth, (b) operating income, (c) market share and (d) the firm's product position in the market. A previous study which involved 193 manufacturing companies in the United States has proven that digital technology or IT impacts on firm performance especially in sales, market share, profitability, market response speed, and customer satisfaction as well as on supply chain agility [23].

**Business Agility.** Dealing with disruptive and continuous changes in the business battlefield forces companies as business organizations to be more agile as well as resilient [24]. Business agility is organizational capability to modify direction and processes of business fast and elegantly when facing the turbulence [25]. The agility of a business is not only related to the flexibility in running a business, but it is also related to the speed [25]. Business agility is an optimal blends of flexibility and speed in the handling of turbulent changes [24].

According to previous study [26], business agility is conceptualized as organizational capability which is reflected into some aspects or dimensions of agility, which are empowered by enablers of agility, and generated by drivers of agility. This article conceptualizes business agility into three dimensions of agility, e.g.: marketing agility (MARAGI), operational agility (OPRAGI), and supply chain agility (SCAGI). For capturing and measuring supply chain agility, this article uses the instrument from the other study [27]. Meanwhile for assessing marketing and operational agility, this article employs the instruments from other study [28].

An empirical study which involved 141 garment manufacturers [23] proves that strategic and manufacturing flexibility has a positive and significant effect on SCAGI and SCAGI and then simultaneously impact on FIPER ( [29]. Based on the those studies [23,29], this article compiles three

hypothesizes that business agility, whether SCAGI, OPRAGI, and MARAGI, has a positive effect on FIPER significantly.

**H<sub>1</sub>:** Supply chain agility (SCAGI) impacts on firm performance (FIPER)

**H<sub>2</sub>:** Operational agility (OPRAGI) impacts on firm performance (FIPER)

**H<sub>3</sub>:** Marketing agility (MARAGI) impacts on firm performance (FIPER)

**Ambidextrous Leadership** is perceived as the capability to apply exploratory (EXPLR) and exploitative (EXPLT) behaviours simultaneously toward others as members of a team [30]. A ambidextrous leader as superiors is able to stimulate and endorse creativity of team members as well as to assure team members to keep efficient in running the business [31], Therefore, business leaders as superiors are encouraged and endorse to combine flexible, situational, and versatile leadership styles [32] in leading company for keeping business performance during crisis.

In this article, ambidextrous leadership is reflected into two main behavioural aspects, such as: (a) explorative behaviour (EXPLR) which is an opening behaviour that encourages, enables, and empowers the innovation in business organization. This behaviour allows team members to apply many different approaches or methods by having freedom to do experimentation; (b) exploitative behaviour (EXPLT) which is a closing behaviour that encourages, enables, and empowers the efficiency happened. This behaviour ensures compliance with objectives, establishment under specific guidance, and corrective action for mistakes [7].

Previous study [33] has revealed conceptually that agility in the leadership plays an important role in leveraging agility of an organization, The study have stated that leadership is an influential factor of business agility. Related to the argument, a previous empirical study has proven corporate culture and entrepreneurial leadership provided a positive effect significantly on the agility of an organization [34]. Referring to those studies [33,34], this article formulate the six hypothesizes that the ambidextrous leadership – which related to explorative (EXPLR) or exploitative (EXPLT) affects business agility – which is reflected into agility in supply chain (SCAGI), operation (OPRAGI), and marketing (MARAGI)

**H<sub>4</sub>:** Explorative behaviour (EXPLR) impacts on supply chain agility (SCAGI)

**H<sub>5</sub>:** Explorative behaviour (EXPLR) impacts on operational agility (OPRAGI)

**H<sub>6</sub>:** Explorative behaviour (EXPLR) impacts on marketing agility (MARAGI)

**H<sub>7</sub>:** Exploitative behaviour (EXPLT) impacts on supply chain agility (SCAGI)

**H<sub>8</sub>:** Exploitative behaviour (EXPLT) impacts on operational agility (OPRAGI)

**H<sub>9</sub>:** Exploitative behaviour (EXPLT) impacts on marketing agility (MARAGI)

## **METHODS AND MATERIALS**

This article is based on cross-sectional quantitative research by applying purposive approach. The targeted respondents are top management from Top 50 companies at Indonesia Stock Exchange or IDX. Then, the survey to approach the top management form other companies at IDX. This study was successful in involving 103 top leaders (CEOs, directors, and senior managers) from 55 public listed companies in IDX which 25 companies are listed as Top 50 and represented about 51.4% market capitalization.

Respondents are the top management of IDX. They are directors and subsidiary directors (38%), division heads (37%), and vice president (25%). Most of respondents are men (76%) with age below than 51 years old (79%). They posses education background with master's or bachelor's degree

(93%). The respondents have been serving for the company longer than five years (74%). Table 1 provides more detailed information of the respondents.

**Table 1. Profile of Respondents**

Descriptions				
Gender	Men	78	76%	76%
	Women	25	24%	100%
Age	Younger than 26-year-old	17	17%	17%
	36 - 40-year-old	13	13%	29%
	41 - 45-year-old	19	18%	48%
	46 - 50-year-old	32	31%	79%
	Older than 50-year-old	22	21%	100%
Education	Bachelor's degree (S1)	61	59%	59%
	Master's degree (S2)	35	34%	93%
	Doctoral degree (S3)	6	6%	99%
	Others	1	1%	100%
Industry	Chemicals and basic industry and	7	7%	107%
	Consumer goods industry	4	4%	111%
	Finance	17	17%	127%
	Transportation, infrastructure, & facility	9	9%	136%
	Mining	6	6%	142%
	Construction, property, & real estate	37	36%	178%
	Investment, trading, and services	21	20%	198%
Position	Directors (CEO, COO, CFO)	34	33%	33%
	Directors of subsidiary	5	5%	38%
	Vice President or SM	26	25%	63%
	Division Head or GM	38	37%	100%
Years of Service	Less than 5 years	27	26%	26%
	5 - 10 years	41	40%	66%
	11 - 15 years	14	14%	80%
	More than 15 years	21	20%	100%
Age of CEO	Less than 40 years old	10	10%	10%
	40 - 50 years old	15	15%	24%
	More than 50 years old	78	76%	100%

This research model was construct from six variables. Firm performance (FIPER) is as the dependent variable. Meanwhile, exploratory behaviour (XPLR) and exploitative behaviour (XPLT), which are dimensions of ambidextrous leadership, are independent variables. The measurement of these two variables uses instruments from previous studies [7]. Meanwhile, business agility is explained by three variables, such as: supply chain agility (SCAGI), operational agility (OPAGI), and marketing agility (MARAGI) become mediating variables. For measuring SCAGI, this article adapts the instrument from previous study [27]. Meanwhile for measuring OPRAGI and MARAGI, this article adapts the instrument from other study [28].The research model from this study is clearly illustrated in Fig. 1.

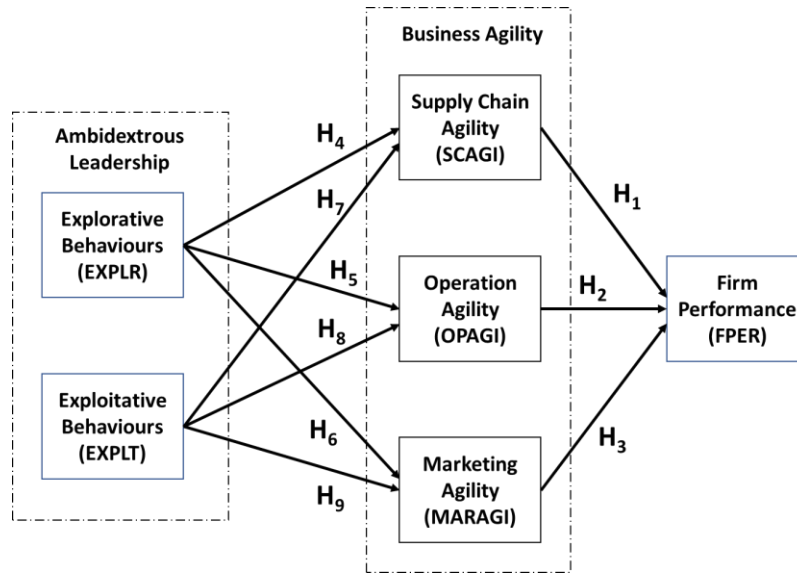


Fig. 1 Conceptual Framework

**RESULTS AND DISCUSSIONS**

The results of validity and reliability analysis on six variables – e.g.: exploration (EXPLR), exploitation (EXPLT), supply chain agility (SCAGI), operational agility (OPRAGI), marketing agility (MARAGI), and firm performance (FIPER) are displayed in Table 2 and Table 3. All indicators of all variables are valid. Because all of them have scores in outer loading (OL) more than 0.6. Because all variables have average variance extracted (AVE) score more than 0.50; all variables are indicated valid too. Because of all variable have scores in composite reliability (CR) or Cronbach alpha (CA) more than 0.70; therefore all of variables are reliable, According Table III, all variables are discriminately valid, because the square root of AVE score which are listed in Table III more than 0.7 and become the highest score in each column. Thus, for the validity and reliability test, the results concludes that all indicators and all variables are valid and reliable.

**Table 2. Validity and Reliability Analysis**

DIMENSIONS	ITEM	OL	AVE	CA	CR
<b>AMBIDEXTROUS LEADERSHIP</b>					
EXPLR	AL01	0.74	0.56	0.84	0.88
	AL02	0.61			
	AL03	0.76			
	AL04	0.88			
	AL05	0.84			
	AL07	0.69			
EXPLT	AL08	0.83	0.57	0.87	0.90
	AL09	0.75			
	AL10	0.85			
	AL11	0.83			
	AL12	0.84			
	AL13	0.61			
	AL14	0.61			

<b>BUSINESS AGILITY</b>					
SCAGI	SA01	0.86	0.75	0.92	0.94
	SA02	0.86			
	SA03	0.91			
	SA04	0.88			
	SA05	0.83			
OPRAGI	OA01	0.83	0.67	0.76	0.86
	OA02	0.81			
	OA03	0.81			
MARAGI	MA01	0.80	0.65	0.73	0.85
	MA02	0.82			
	MA03	0.80			
<b>FIRM PERFORMANCE</b>					
FIPER	FP01	0.87	0.76	0.90	0.93
	FP02	0.92			
	FP03	0.89			
	FP04	0.82			

**Table 3. Discriminant Validity Analysis**

	[1]	[2]	[3]	[4]	[5]	[6]
[1] EXPLR	0.75					
[2] EXPLT	0.54	0.76				
[3] FIPER	0.38	0.27	0.88			
[4] MARAGI	0.51	0.32	0.61	0.81		
[5] OPRAGI	0.35	0.28	0.53	0.74	0.82	
[6] SCAGI	0.34	0.26	0.81	0.62	0.54	0.87

The results of the hypothesis testing are displayed in Table 4. From nine hypotheses, five hypotheses are rejected because they had *t*-statistics values less than 1.96 or *p*-values higher than 0.05. The accepted hypotheses are H<sub>1</sub>, H<sub>4</sub>, H<sub>5</sub>, and H<sub>6</sub>. This results explains that: (a) firm performance (FIPER) is positively and significantly affected by supply chain agility (SCAGI); (b) explorative behaviours (EXPLR) affects supply chain agility (SCAGI), operational agility (OPRAGI) and marketing agility (MARAGI); (c) marketing agility (MARAGI) and operational agility (OPRAGI) had no effect on firm performance (FIPER); (d) exploitative behaviour (EXPLT) had no effect on supply chain agility (SCAGI), operational agility (OPRAGI), and marketing agility (MARAGI).

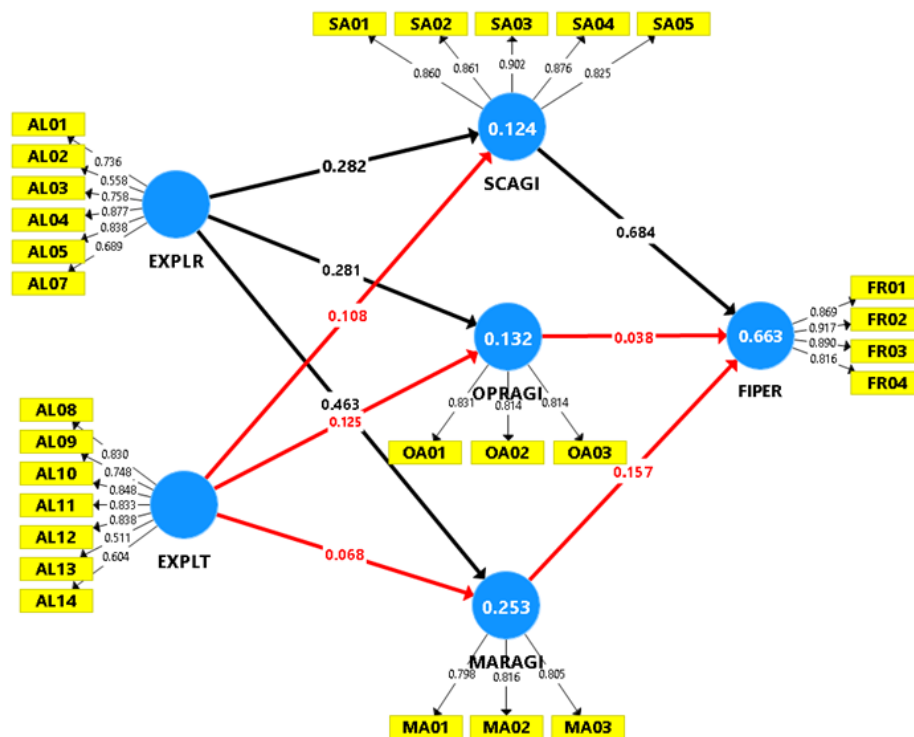
**Table 4. Testing Hypothesizes**

Hypothesizes		Beta	<i>t</i> -Statistics	<i>p</i> -Values	Conclusions
H <sub>1</sub>	SCAGI ==> FIPER	0.68	7.34	0.00	Supported
H <sub>2</sub>	OPRAGI ==> FIPER	0,05	0.39	0.68	Not Supported
H <sub>3</sub>	MARAGI ==> FIPER	0.16	1.44	0.14	Not Supported
H <sub>4</sub>	EXPLR ==> SCAGI	0.28	2.72	0.00	Supported
H <sub>5</sub>	EXPLR ==> OPRAGI	0.28	2.45	0.02	Supported
H <sub>6</sub>	EXPLR ==> MARAGI	0.46	5.12	0.01	Supported

H <sub>7</sub>	EXPLT ==> SCAGI	0.11	0.90	0.34	Not Supported
H <sub>8</sub>	EXPLT ==> OPRAGI	0.12	1.07	0.29	Not Supported
H <sub>9</sub>	EXPLT ==> MARAGI	0.07	0.66	0.52	Not Supported

**Managerial Implication**

This article generally strengthens the previous studies which proved that leadership has an indirect effect on organizational performance but has a direct effect on organizational capability. Organizational capability play a mediating role in the impact of leadership on organizational performance. In particular, this article captures the phenomenon that the crises cause ambidextrous leadership cannot be carried out in a balanced manner. Heavy external pressures on the company also impact on the life of employee. It may causes the leaders are expected to be more explorative rather than exploitative. Top management should display more opening behaviour that encourages creativity and innovation rather than closing behaviour that demands compliance and uniformity of actions from the employees.



**Fig. 2 The Result of PLS Algorithm and Bootstrapping Analysis**

Explorative behaviour of top management will escalate the development of business agility throughout the company, both in supply chain and operational production, as well as in marketing. The employees from all functions will quickly and flexibly carry out their work so that they can minimize risks while also capturing business opportunities during crises. The entire organization will be more agile in responding to business changes.

From the three main functions in the business organization, the supply chain function should be prioritized to be more agile rather than others. Because the statistical analysis result confirms that

supply chain agility is the only one that has a significant impact on firm performance. No matter how agile the company is in conducting marketing and/or operational production function, if the company do not conduct agile supply chain; then it still has no impact on the firm performance. As an illustration, the company when responding a crisis has made various efforts for marketing and also preparing operational production as flexible as possible. However, if supply chain function fails to provide the needed materials and services for production or cannot distribute the product to the customers flexibly and speedy; then of course it does not generate any revenues for the company.

Recommendations for management practitioners in managing and leading public companies at VUCA world are to be focused more on explorative behaviour, rather than exploitative behaviour. Top management should prioritize to the business initiatives in developing chain agility rather than operational or marketing agility for the whole business agility development programs.

## RESULTS AND DISCUSSIONS

In dealing with Covid-19 as a VUCA phenomenon, leading public companies, the exploration approach is more relevant to encourage the development of business agility in whole business functions, either in supply chain agility, operations, or marketing. From those three main functions, agility in supply chain has the most impact on firm performance. In VUCA conditions, where uncertainty is high and relationships between companies and suppliers are becoming increasingly difficult to develop; supply chain agility is key. The inability to ensure that the supply chain is in a high level of agility will have a major impact on the overall business agility and will ultimately seriously disrupt the firm performance especially in financial and market domination.

The research was conducted using a non-probabilistic sampling method. For further research, it can be carried out probabilistically through collaboration with the Indonesia Stock Exchange. Likewise, the measurement of firm performance in this study still uses the self-reported approach of the respondents. For further research, firm performance may be measured through published financial reports or other available secondary data of companies in IDX.

## REFERENCES

- A. Harris and M. Jones, COVID 19–School Leadership in Disruptive Times, School Leadership & Management.
- S. Ahern and E. Loh, Leadership during the COVID-19 Pandemic: Building and Sustaining Trust in Times of Uncertainty, *BMJ Lead. leader* (2020).
- V. Kaul, V. H. Shah, and H. El-Serag, Leadership during Crisis: Lessons and Applications from the COVID-19 Pandemic, *Gastroenterology* 159, 809 (2020).
- R. Johansen, Leaders Make the Future: Ten New Leadership Skills for an Uncertain World (Berrett-Koehler Publishers, 2012).
- S. Bawany, Leading in a VUCA Business Environment, *Leadersh. Excell. Essentials* 7, 39 (2016).
- S. Murugan, S. Rajavel, A. K. Aggarwal, and A. Singh, Volatility, Uncertainty, Complexity and Ambiguity (VUCA) in Context of the COVID-19 Pandemic: Challenges and Way Forward, *Int. J. Heal. Syst. Implement. Res.* 4, 10 (2020).
- N. Saputra, N. Sasanti, F. Alamsjah, and F. Sadeli, Strategic Role of Digital Capability on Business Agility during COVID-19 Era, *Procedia Comput. Sci.* 197, 326 (2022).
- A. Herwany, E. Febrian, M. Anwar, and A. Gunardi, The Influence of the COVID-19 Pandemic on Stock Market Returns in Indonesia Stock Exchange, *J. Asian Financ. Econ. Bus.* 8, 39 (2021).



- C. D. Utomo and D. Hanggraeni, The Impact of COVID-19 Pandemic on Stock Market Performance in Indonesia, *J. Asian Financ. Econ. Bus.* 8, 777 (2021).
- H. Pitaloka, A. U. A. Al Umar, E. R. Hartati, and D. Fitria, The Economic Impact of the COVID-19 Outbreak: Evidence from Indonesia, *J. Inov. Ekon.* 5, (2020).
- S. Devi, N. M. S. Warasniasih, and P. R. Masdiantini, The Impact of COVID-19 Pandemic on the Financial Performance of Firms on the Indonesia Stock Exchange, *J. Econ. Business, Account. Ventur.* 23, (2020).
- D. J. Teece, M. A. Peteraf, and S. Leih, Dynamics Capabilities and Organizational Agility, *Calif. Manage. Rev.* 38 (2016).
- D. J. Teece, Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance, *Strateg. Manag. J.* 28, 1319 (2007).
- D. J. Teece, G. Pisano, and A. Shuen, Dynamic Capabilities and Strategic Management, *Strateg. Manag. J.* 18, 509 (1997).
- O. Laaksonen and M. Peltoniemi, The Essence of Dynamic Capabilities and Their Measurement, *Int. J. Manag. Rev.* 20, 184 (2018).
- C. A. O'Reilly III and M. L. Tushman, Ambidexterity as a Dynamic Capability: Resolving the Innovator's Dilemma, *Res. Organ. Behav.* 28, 185 (2008).
- K. Amayreh and N. A. Salleh, Creating Organizational Agility through the Dynamic Capabilities of Web-Oriented Architecture, 2013 IEEE Conf. e-Learning, e-Management e-Services, IC3e 2013 89 (2013).
- J. Sena, J.-F. Coget, and A. B. Shani, Designing for Agility as an Organizational Capability: Learning from a Software Development Firm, *Int. J. Knowledge, Cult. Chang. Manag.* 9, 17 (2009).
- S. Baškarada and A. Koronios, The 5S Organizational Agility Framework: A Dynamic Capabilities Perspective, *Int. J. Organ. Anal.* (2018).
- C. A. O'Reilly III and M. L. Tushman, Organizational Ambidexterity: Past, Present, and Future, *Acad. Manag. Perspect.* 27, 324 (2013).
- D. Kafetzopoulos, Ambidextrous Leadership: A Narrative Literature Review for Theory Development and Directions for Future Research, *Balt. J. Manag.* (2021).
- A. Agarwal, Investigating Design Targets for Effective Performance Management System: An Application of Balance Scorecard Using QFD, *J. Adv. Manag. Res.* (2020).
- S. E. DeGroote and T. G. Marx, The Impact of IT on Supply Chain Agility and Firm Performance: An Empirical Investigation, *Int. J. Inf. Manage.* 33, 909 (2013).
- J. McCann and J. W. Selsky, Mastering Turbulence: The Essential Capabilities of Agile and Resilient Individuals, Teams and Organizations (John Wiley & Sons, 2012).
- M. van Oosterhout, E. Waarts, and J. van Hillegersberg, Assessing Business Agility: A Multi-Industry Study in the Netherlands, in *IFIP International Working Conference on Business Agility and Information Technology Diffusion* (Springer, 2005), pp. 275–294.
- A.-T. Walter, Organizational Agility: Ill-Defined and Somewhat Confusing? A Systematic Literature Review and Conceptualization, *Manag. Rev. Q.* 71, 343 (2021).
- C. Blome, T. Schoenherr, and D. Rexhausen, Antecedents and Enablers of Supply Chain Agility and Its Effect on Performance: A Dynamic Capabilities Perspective, *Int. J. Prod. Res.* 51, 1295 (2013).
- Y. Lu and K. (Ram. Ramamurthy, Understanding the Link between Information Technology Capability and Organizational Agility: An Empirical Examination, *MIS Q.* 931 (2011).

- A. T. L. Chan, E. W. T. Ngai, and K. K. L. Moon, The Effects of Strategic and Manufacturing Flexibilities and Supply Chain Agility on Firm Performance in the Fashion Industry, *Eur. J. Oper. Res.* 259, 486 (2017).
- J. Mueller, B. Renzl, and M. G. Will, Ambidextrous Leadership: A Meta-Review Applying Static and Dynamic Multi-Level Perspectives, *Rev. Manag. Sci.* 14, 37 (2020).
- K. Rosing, M. Frese, and A. Bausch, Explaining the Heterogeneity of the Leadership-Innovation Relationship: Ambidextrous Leadership, *Leadersh. Q.* 22, 956 (2011).
- K. Ben Zarb, C. S. D. La Robertie, and S. K. Zouaoui, Ambidextrous Leadership as a Multidimensional Construct, in *Country Experiences in Economic Development, Management and Entrepreneurship* (Springer, 2017), pp. 811–824.
- B. Joiner, Leadership Agility for Organizational Agility, *J. Creat. Value* 5, 139 (2019).
- Z. Khalid, R. Madhakomala, and D. Purwana, How Leadership And Organizational Culture Shape Organizational Agility In Indonesian SMEs??, *IJHCM (International J. Hum. Cap. Manag.* 4, 49 (2020).