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## A moderate mediation model of VUCA skills and strategic leadership for increasing organizational innovation with resource-based strategies

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### Abstract

The telecommunications network sector plays a critical role in supporting Indonesia's digital infrastructure, particularly in the expansion of 4G technology. Amidst rapid technological advancement and intensifying market competition over the past decade, sustaining organizational innovation (OI) has become essential for long-term competitiveness. Anchored in the resource-based view (RBV), this study investigates how resource-based management initiatives (RBMI) influence OI, while addressing inconsistencies in previous empirical findings. By integrating dynamic capability theory (DCV) and contingency leadership theory, the study introduces VUCA skills as a mediating variable and strategic leadership (SL) as a moderating factor. Using a quantitative approach, data were collected through descriptive and explanatory surveys from 311 managers in four wireless telecommunications infrastructure companies in Indonesia. The analysis conducted using Structural Equation Modelling–Partial Least Squares (SEM–PLS), reveals that RBMI positively influences VUCA skills, which significantly enhance OI. However, the hypothesized moderating effect of strategic leadership on the RBMI–OI relationship was not supported, indicating SL may act more as an external enabler than an internal organizational driver. These findings contribute to a deeper understanding of how strategic capability integration can support innovation in dynamic and uncertain environments.

**Keywords:** Indonesia, Organizational innovation, Resource-based management initiatives, Strategic leadership, Telecommunications network technology, VUCA Skills.

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## **1. Introduction**

The information technology and communication (ICT) sector is one of the fastest-growing sectors in Indonesia. The Ministry of Communication and Information of the Republic of Indonesia says that the ICT industry grew by an average of 9.53% from 2011 to 2021 [1]. This is far faster than the national economic growth rate of 4.51% for the same time period [2]. In the previous ten years, the ICT company has grown quickly, which has created both chances and risks. Market demands and the quick rate of advances in information technology (IT) have created volatile, unpredictable, complex, and ambiguous (VUCA) conditions that could threaten the existence of businesses [3]. So, the availability of supporting infrastructure, such as technology, networks, telecommunication equipment, and software, has a big effect on ICT sustainability. Telecommunication network technology and maintenance providers are a niche that acts as a supplier (business-to-business/B2B) of infrastructure for wireless telecommunications operators in the Indonesian ICT industry. This is different from telecommunication service providers that are directly related to end-customers. There were eight companies in this area in 2011. Now, only four of the eight companies that provided Wireless Telecommunications infrastructure in Indonesia are still in business.

An organization's ability to foresee, accept, and react to changes brought about by innovation has a significant impact on its performance. In a rapidly evolving technological landscape, strategic adaptation is essential for maintaining a competitive edge. Organizations that neglect to analyse the trajectory of technical improvements frequently experience declining performance in various areas, including revenue generation, market penetration, profitability, and brand equity. Consequently, innovation must be regarded not only as a value-enhancing endeavour but as a strategic necessity that supports long-term sustainability and economic growth. Companies that disregard investment in innovation and technical advancement, even after establishing dominant market positions, are vulnerable to stagnation and potential commercial failure.

The current literature suggests that innovative companies are more inclined to endure and prosper [4]. In a chaotic setting, companies need to adopt new management techniques and innovations to stay alive and grow [5]. Consequently, meticulously strategized and proficiently executed innovations can provide a competitive edge [6] and attain enhanced performance [7]. Conversely, inadequate innovation performance results in a deterioration of businesses' competitive standing [8] hence impacting their survival capacity [9].

The resource-based view (RBV) idea, which suggests that internal resources—whether material or intangible—are the foundation of a business's long-term competitive advantage [10] is known as the innovation argument [11]. The generation of creativity within an organization during challenging periods relies on an environment that nurtures internal competencies, including personnel, inventive concepts, and employee engagement, to enhance organizational value [12]. Consequently, according to Resource-Based View (RBV) theory, innovation constitutes a component of the competitive advantage derived from a company's internal resources, particularly human resources, and influences its competitiveness and sustainability.

The Organisation for Economic Co-operation and Development (OECD) [13] categorizes four forms of innovation essential for survival: product, process, marketing, and organizational innovation. Previous assertions indicate that substantial market needs and swift technical advancements have engendered VUCA environments, requiring both radical and incremental innovation [14]. This necessitates transformative advancements and enhancements in products, processes, marketing, and organizational structures [13].

The Resource-Based Management Initiatives (RBMI) approach functions as a foundational element for organizations to enhance their internal resources in reaction to external environmental pressures [15, 16] emphasizing the deployment of internal resources and capabilities as the cornerstone for attaining competitive advantage. The Resource-Based View (RBV) paradigm posits that businesses possessing and managing resources that are valued, scarce, inimitable, and non-substitutable are more likely to innovate and thrive in competitive environments [11].

An exhaustive literature analysis and thorough examination revealed that organizational capabilities, particularly VUCA skills, are essential for enhancing organizational innovation in Indonesia's technology provider and communication network maintenance industry. The VUCA skill set comprises individual competencies within an organization designed to establish a competitive advantage [17]. Attributes include curiosity, creativity, and tolerance for interruptions facilitate the cultivation of VUCA skills [18]. Additionally, VUCA skills can be classified into three primary categories: sensing skills, action skills, and transformation skills [17-19]. It was previously asserted that by integrating Resource-Based View (RBV) and Dynamic Capabilities View (DCV), organizations can enhance their internal resources while synchronizing them with external environmental demands [20-23]. Consequently, the VUCA competencies that businesses possess will be crucial to the execution of HR management strategies (e.g., RBMI) aimed at enhancing organizational innovation.

Moreover, strategic leadership is essential for directing the execution of strategies and optimizing organizational competencies. Innovative and flexible leaders can facilitate organizational transformation and cultivate an atmosphere conducive to innovation. Prior research indicates that strategic leadership can either enhance or diminish the impact of strategy on innovation, contingent upon the leaders' capacity to manage change and facilitate technology [24, 25].

Despite the extensive application of the Resource-Based View (RBV) theory to elucidate the connection between resource-based strategies and organizational innovation, empirical research investigating the mediating role of VUCA Skills and the moderating influence of strategic leadership within a unified model, particularly in an organizational context, remains scarce. Consequently, additional research is required to comprehend the interplay of these three elements in fostering organizational innovation, particularly in the context of rapid digital transition and in emerging nations like Indonesia.

First, the function of VUCA Skills as a mediating variable has not been thoroughly investigated. Numerous prior studies have only positioned VUCA Skills as an independent variable or technical support, neglecting to investigate how these competencies systematically and structurally connect resource strategies with innovation outcomes.

Secondly, less emphasis has also been paid to the influence of strategic leadership as a moderating factor in the context of the interaction between strategy and innovation. Research on how strategic leadership influences the efficacy of VUCA Skills in mediating these interactions is limited. The vision, guidance, and endorsement of senior leadership significantly shape the efficacy of strategy and technology.

Third, the literature still hardly ever contains conceptual models that integrate the three variables—strategic leadership, VUCA skills, and resource-based management initiatives—into a single moderated mediation framework. The ambiguity of this relational framework permits theoretical inquiry and empirical validation to enhance the scientific comprehension of how companies might foster innovation through synergies among strategy, adaptability, and leadership. Consequently, there is an imperative to formulate and evaluate models that amalgamate these three components to tackle the problems of innovation in the context of digital transformation.

This study emphasizes organizational capabilities as an innovation to address discrepancies in prior studies. Organizational competencies need to improve organizational innovation (OI) within the technology provider and communication network maintenance industry in Indonesia, particularly VUCA skills. To address this deficiency, this study formulates a conceptual framework by integrating the Resource-Based View (RBV), Dynamic Capabilities View (DCV), and contingency leadership theories. This study presents two novelties: (i) it introduces the organizational capability of VUCA Skills as a mediator in the RBMI-OI relationship; (ii) it examines the role of SL as a moderator in the impact of RBMI strategy on IT-C and OI.

The objective of this research is twofold: firstly, to evaluate and examine the mediating role of VUCA Skills in the relationship between RBMI and OI. Second, testing and analysing how SL moderation affects the impact of RBMI on VUCA Skills.

## **2. Theoretical Framework**

One of the most prominent theories in the field of strategic management is the Resource-Based View (RBV). This perspective clarifies that internal sourcing constitutes an ongoing competitive advantage for the organization. The Resource-Based View (RBV) is a managerial framework employed to identify strategic resources that organizations can leverage to attain a sustained competitive advantage. The Resource-Based View (RBV) adopts an 'inside-out' or organization-specific approach to elucidate the reasons for an entity's success or failure in the marketplace [26].

According to Teece [27] the term "dynamic capability view" (DCV) describes a company's capacity to integrate, develop, and reorganize both internal and external resources and capabilities in response to a business environment that is changing quickly. Dynamic capabilities assess the ability to align and recombine resources and competencies to suit the business environment. Perception, acquisition, and transformation are essential qualities that empower a corporation to prosper in the business landscape. These competencies are crucial for sustained profitability [27].

The phenomenon of leadership is one of the most intricate and multifaceted. Leadership remains a topic of engaging and perplexing discussions, attributable to the intricacies of its subject matter [28]. Various definitions and theories of leadership have been proposed by researchers. Stogdill [29] characterizes it as 'an influencing process aimed at achieving goals', emphasizing leadership as a process that influences a particular group to attain specified objectives. The environment significantly influences leader-follower dynamics, with these beliefs prevailing in the situational context [30]. Situational theory emphasizes leadership in relation to specific contexts, rather than concentrating on the characteristics or actions of the leader. This indicates that leaders need to evaluate the context in which they function and subsequently determine the most appropriate style for the situation. The optimal leadership style is contingent upon the specific context, a concept referred to as leadership contingency theory. Fred Fiedler developed a theory of leadership contingency based on a situation-based perspective [31-33]. His theory emphasizes the importance of context in effective leadership and argues that no single set of leadership traits or behaviours is universally optimal. Fiedler posits that a leader's style is inherently fixed, necessitating their placement in situations that align with their specific style. The effectiveness of a leader is contingent upon the alignment of their leadership style with the specific context.

Organizations must modify their decision-making process and shift away from their typical reactive strategy to become more resilient in the face of turbulent VUCA situations. Consequently, organizations must cultivate new dynamic capabilities instead of relying on conventional capabilities typically utilized in strategic leadership [34]. Delineated three categories of dynamic capabilities: Sensing, Seizing, and Transformation. Sensing pertains to the alteration of identification and evaluation prior to rivals. Edge vision - utilizing a broad perspective to observe the external environment for subtle warning signals – facilitates the identification of hazards and opportunities inside the VUCA landscape. Seizing denotes the immediate and effective response to identified risks and opportunities. Decision agility and the capacity to internally back those decisions enable firms to prosper despite VUCA-type disturbances to standard operations. Transformation refers to the evolution of a corporation and its competencies, which are crucial to the organization's innovative capabilities. The competencies necessary for this dynamic capability include anticipating change and questioning existing paradigms (for sense), interpreting information and making satisfactory judgments (to seize), and reconciling the perspectives of diverse stakeholders while learning from both successes and failures (to change).

### 3. Research Method

This study employs a quantitative approach, utilizing a survey method to gather data via an online questionnaire. This study employs descriptive and explanatory survey methods. The descriptive survey method is a research approach utilized to assess the current status of a population, an object, a set of conditions, a system of thought, or a category of events. The explanatory survey method is a technique designed to clarify the relationship between variables in the study [35].

The population of this study comprises 824 employees occupying managerial roles across four wireless network infrastructure firms in Indonesia. This criterion was selected based on the premise that individuals in managerial positions possess a sufficient understanding of top management strategies and attitudes necessary for pursuing innovation.

The Slovin formula, utilizing a precision level of 5% (0.05), was selected to ascertain the sample size from a total population of 824. Consequently, the minimum sample size for this investigation is 269.28, which is rounded to 270 samples. To achieve superior study outcomes, a target of over 300 samples is established.

The sample subject of this study is selected using a probability sampling method, ensuring that each member of the population has an equal chance of being included in the sample. Moreover, basic random sampling is utilized for the sampling procedure.

### 4. Results and Discussion

#### 4.1. Results

The survey was distributed at random to a list of managers from four Indonesian cellular telecommunications infrastructure companies. Out of 400 distributed questionnaires, 312 responses were received, resulting in a response rate of 78%. One response was excluded because the respondent was ineligible. The total number of eligible samples is 311, representing 77.75% of the overall total. Table 1 presents detailed demographic data for the respondents.

**Table 1.**  
Respondents' Profile.

Remarks	N	Percentage
Number of Samples	312	100
Sample removed ( <i>purposive</i> )	1	0.3
Final Sample	311	99.7
Age:		
- ≤ 24 years	10	3.2
- 25 - 40 years	147	47.3
- ≥ 40 years	154	49.5
Gender:		
- Male	238	76.5
- Female	73	23.5
Education:		
- Diploma or equivalent	20	6.4
- Bachelor	235	75.6
- Master	51	16.4
- Doctoral	5	1.6
Company:		
- PT Ericsson Indonesia	119	38.3
- PT Huawei Tech Investment	64	20.6
- PT Nokia Networks Indonesia	70	22.5
- PT ZTE Indonesia	58	18.6
Work Experience:		
- < 1 year	3	1.0
- 1-5 years	29	9.3
- 5-10 years	79	25.4
- 10-15 years	118	37.9
- > 15 years	82	26.4
Position or title:		
- Supervisor/ or equivalent	4	1.3
- Sr. Supervisor/ or equivalent	59	19.0
- Area Manager/ Asst Manager/ or equivalent	126	40.5
- Dept Head/ Sr. Manager/ GM/ or equivalent	122	39.4

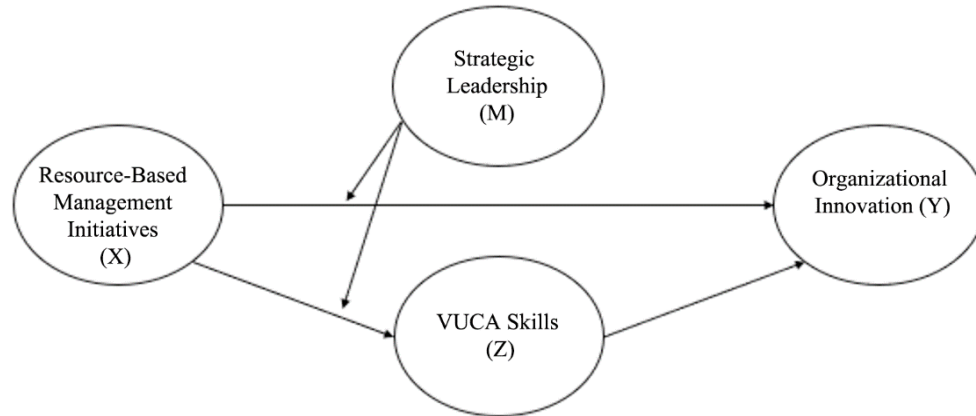
The data processing from the questionnaire shows that all indicators have an outer loading value between 0.668 (OI13) and 0.914 (VUCAS1). This means that each indicator is strongly related to its latent variable (condition > 0.6), which means that the criterion for convergent validity is met.

The outcomes of the discriminant validity assessment, based on the cross-loading values, indicated that all indicators were valid, demonstrating a robust connection within the latent variable relative to other latent variables. The dependability

coefficient of the composites varies between 0.962 and 0.979, with a minimum AVE value of 0.674, so confirming their reliability

The R-square value of OI is 0.900, and the R-square VUCA Skills value is 0.721. A total determination coefficient ( $R^2$ ) of 0.998984975 was achieved. The structural model test (inner model) results indicate that the model in this study has exceptional predictive relevance [36].

Additionally, an analysis was performed to investigate the relationship between the variables specified in the model framework of this study, which investigates the impact of RBMI on OI, as illustrated in Figure 1.



**Figure 1.**  
Model Framework.

Both direct and indirect effects are included in the hypothesis test results, and they are quantified using a variety of indicators, including path coefficients, t-values, and p-values. All these results are utilized to assess relationships within the primary structural model, as illustrated in Table 2.

**Table 2.**  
Hypothesis test results between research variables.

Hypothesis	Code	Coefficient	T Statistics	P Values	Result
RBMI has a positive effect on OI	H1	0.561	4.923	0.000	Significant
VUCA skills have a positive effect on OI	H2	0.128	2.398	0.017	Significant
RBMI has a positive effect on VUCA skills	H3	0.824	5.836	0.000	Significant
VUCA skills mediate the relationship between RBMI and OI	H4	0.106	2.225	0.025	Significant
SL moderates the influence of RBMI on OI	H5	-0.007	0.160	0.873	Not Significant
SL moderates the influence of RBMI on VUCA Skills	H6	0.193	3.978	0.000	Significant

The findings from the hypothesis test presented in Table 2 illustrate the connection between the variables influencing organizational innovation. The initial hypothesis (H1) posits that RBMI has a positive influence on OI, as evidenced by a coefficient value of 0.561, a t-statistic of 4.923, and a p-value of 0.000. The third hypothesis (H2) suggests that VUCA Skills have a positive and significant influence on OI, as indicated by a coefficient value of 0.128, a t-statistic of 2.398, and a p-value of 0.017. Additionally, the third hypothesis (H3) suggests that RBMI has a positive and significant effect on VUCA Skills, as indicated by a coefficient of 0.824, a t-statistic of 5.836, and a p-value of 0.000. Furthermore, it was determined that VUCA Skills played a notable mediating role in the relationship between RBMI and OI, evidenced by a coefficient of 0.106, a t-statistic of 2.225, and a p-value of 0.025, thereby confirming the acceptance of the fourth hypothesis (H4). The fifth hypothesis (H5) concerning SL moderation produced insignificant results and was therefore rejected. The impact of SL moderation on the relationship between RBMI and OI in H5 was not significant, as indicated by a t-statistical value of 0.160 and a p-value of 0.873. In the sixth hypothesis (H6), the moderation of SL on the relationship between RBMI and VUCA Skills demonstrated a significant effect, evidenced by a coefficient of 0.193, a t-statistic of 3.978, and a p-value of 0.000. In general, the majority of the prominent hypotheses are acknowledged, indicating that RBMI and VUCA Skills play a crucial role in driving Organizational Innovation. Nonetheless, this study did not demonstrate a significant role of strategic leadership moderation in the RBMI-OI relationship. The findings from the thorough analysis of the hypothesis test are presented at the following points:

1. RBMI has a positive influence on OI.
2. VUCA skills have a positive effect on OI.
3. RBMI has a positive effect on VUCA Skills.
4. VUCA skills mediate the partial influence of RBMI on OI.
5. SL does not moderate the influence of RBMI on OI.
6. SL significantly moderates the positive influence of RBMI on VUCA skills.

## 5. Discussion

In the context of the telecommunication network technology and maintenance industry, VUCA Skills play a crucial mediating role in the relationship between RBMI and OI. This study, grounded in the theoretical frameworks of Resource-Based View (RBV) and Dynamic Capabilities View (DCV), effectively illustrated that the VUCA skills of employees can partially mediate the execution of the Resource-Based Market Innovation (RBMI) strategy in enhancing the company's overall impact (OI), evidenced by a path coefficient of 0.106, a t-statistic of 2.225, and a p-value of 0.025. RBMI can influence OI directly or indirectly via VUCA skills. The proficiency of managers in addressing the VUCA environment helps ensure that resource-based management strategies aimed at enhancing the company's organizational innovation are matched with market demands. This will underscore the effectiveness of innovation in strengthening the company's competitive position within the industry.

This research is the first investigation to demonstrate the substantial impact of VUCA skills mediation on the correlation between RBMI and OI. RBMI is about managing and using a company's resources to give it a long-term edge over its competitors [37]. OI, on the other hand, is about generating and implementing new ideas for products, processes, or services that can benefit businesses [13, 38]. Companies must generate innovative ideas in a VUCA world to remain relevant and competitive [34]. VUCA skills act as a link between the power RBMI and OI outcomes in this case. These abilities enable managers to maximize their resources when faced with challenges in a VUCA environment. Companies may struggle to utilize their resources effectively to drive relevant innovations if they lack sufficient VUCA capabilities.

A close relationship exists between RBMI and OI in the context of telecommunications network technology and maintenance (see discussion on the first hypothesis). In a VUCA environment like the technology and telecommunications sectors, the impact of RBMI on OI relies not just on the effective use of resources but also on managers' capacity to navigate VUCA issues. VUCA skills serve as a crucial mediating component.

Within the framework of this research, SL is regarded as an external factor that may undermine correlations between variables rather than enhance them. Consequently, these findings suggest the potential for investigating whether SL is more suitably characterized as a mediating variable that facilitates the internalization of RBMI values, rather than serving as a moderator in the connection among strategic variables.

Since the success of leadership is heavily reliant on the circumstances facing the organization, it is possible that SL will not considerably mitigate the impact of RBMI on OI, according to contingency leadership theory. In the telecommunications network maintenance and technology provider sector, where swiftly evolving external challenges require prompt operational responses, intricate internal factors such as innovation culture, organizational structure, and team collaboration significantly influence RBMI's capacity to foster innovation. Consequently, strategic leaders who concentrate on long-term planning and an overarching vision may not consistently exert a substantial influence in moderating these connections, particularly when organizations require more agile and adaptive leadership amidst volatile, uncertain, complex, and ambiguous market conditions.

As the final hypothesis, this study suggests that SL moderates the impact of RBMI on VUCA skills. Empirical research revealed that this leadership style markedly improved the impact of RBMI on VUCA skills. The coefficient is 0.193, with a t-statistic of 3.978 and a p-value of 0.000. To leverage organizational assets, including VUCA skills, and mitigate VUCA environmental pressures, SL may therefore promote the adoption of RBMI's strategic management.

SL refers to the leader who can make long-term decisions, use resources wisely, and guide the group through changes and uncertainty [39]. SL is a crucial moderation element that can either improve or weaken the link between RBMI and VUCA skills. RBMI denotes managerial strategies that efficiently leverage and administer organizational resources to establish a competitive edge [20] while VUCA skills are crucial for navigating challenges in a volatile, uncertain, complex, and ambiguous landscape [17, 40]. This study's findings suggest that proficient strategic leadership can enhance the execution of resource-based management initiatives by ensuring efficient resource management and optimal utilization in response to volatile, uncertain, complex, and ambiguous dynamics. In other words, SL can balance and address uncertain environmental problems (VUCA), which enables the firm to make the best use of its resources.

This research is the inaugural investigation of the influence of SL moderation on the correlation between RBMI and VUCA skills. It provides a significant theoretical contribution to the synergy between DCV and contingency leadership. This study's findings affirm that SL significantly moderates the association between RBMI and VUCA skills within the realm of technology providers and telecommunication network maintenance. The telecommunications sector, particularly those focusing on technology and network maintenance, operates within a VUCA environment [3]. Accelerated technological advancements, intense competition, ever-changing legislation, and increasingly complex client requirements present substantial challenges for organizations within the industry. Under these circumstances, companies must possess the capability to navigate ambiguity, address complexity, and react to susceptibility to change. Strategic leadership is crucial in guiding the organization through VUCA challenges [19]. They can make decisions informed by a long-term vision and formulate strategies to manage current resources, such as through RBMI, to adapt and respond to swift and unforeseen changes in the external environment.

## 6. Suggestion

Some recommendations from this research for future studies include adopting a blended methodology to enhance understanding and broadening the research setting to encompass additional sectors with varying environmental conditions. The subsequent researcher may examine the role of VUCA Skills not only as a mediator but also as a moderator that enhances the link between variables, while also considering SL as a mediator. Another idea is that businesses or groups can

utilize a customized RBMI strategy by employing a set of VUCA skills to enhance or improve OI. Strategic leaders of the organization need to be adaptable so that they can respond to and adapt to VUCA market situations more easily.

## 7. Conclusion

VUCA Skills mediation has been shown to have a substantial, favourable impact on the link between RBMI and OI in this research. Furthermore, RBMI positively influences VUCA Skills, which in turn positively affect OI. This research illustrates the moderating influence of Servant Leadership on the link between Resilience-Based Management and VUCA Skills. Nonetheless, it does not facilitate moderation in the RBMI-OI interaction, as SL is regarded as an external influence (moderation) rather than an internal mechanism (mediation).

With regard to the theoretical synergy of RBV, DCV (RBMI Management Strategy), and contingency leadership in the Indonesian wireless telecommunication infrastructure industry, this research adds to the body of Knowledge in the field of strategic management. Enhancing comprehension of the RBMI strategy (as a resource-based managerial initiative) in leveraging OI's competitive advantage and providing a novel perspective on the significance of cultivating internal capabilities, particularly VUCA skills, in enhancing the efficacy of the RBMI strategy. This study contributes to the advancement of scholarly discourse by proposing an integrated framework that combines resource-based management initiatives (RBMI), organizational capabilities—specifically VUCA-related skills—and the role of strategic leadership. Through this model, a more nuanced understanding can be developed regarding how strategic leadership functions as a moderating variable across diverse organizational contexts and dynamic environmental conditions..

Employee VUCA skills significantly enhance the contribution to the success of OI. VUCA's various skills such as the ability to obtain details of external environmental situations in making innovation decisions (sensing), the ability to take appropriate actions based on external environmental situations (actions), and the ability to design and formulate innovation objectives based on external environmental pressures (transformation) can ensure that the pursuit of innovation is tailored to the needs of the sector.

The findings suggest that implementing the RBMI strategy will equip employees with a repertoire of VUCA abilities to navigate a volatile and uncertain corporate landscape. By adopting RBMI, managers in the telecommunications network technology and maintenance industry can enhance their preparedness to confront the difficulties of the VUCA environment. RBMI equips them with the resources to swiftly adapt, enhance decision-making under uncertainty, manage complexity with greater efficiency, and provide clear guidance in ambiguous circumstances.

The study's shortcoming lies in its quantitative methodology, emphasizing the breadth of the association between variables over its depth. This research also examines sub-sectors of the telecommunications industry that possess distinct characteristics, which may not be comparable to those in other industrial sectors.

## References

- [1] Ministry of Communications and Informatics of the Republic of Indonesia (KOMINFO), *Annual report*. Jakarta: Ministry of Communications and Informatics, 2021.
- [2] Badan Pusat Statistik, *Laporan Kinerja BPS tahun 2022 annual performance report 2022*. Jakarta: Badan Pusat Statistik, 2022.
- [3] E. J. Oughton, W. Lehr, K. Katsaros, I. Selinis, D. Bubley, and J. Kusuma, "Revisiting wireless internet connectivity: 5G vs Wi-Fi 6," *Telecommunications Policy*, vol. 45, no. 5, p. 102127, 2021. <https://doi.org/10.1016/j.telpol.2021.102127>
- [4] O. F. Bustinza, F. Vendrell-Herrero, M. N. Perez-Arostegui, and G. Parry, "Technological capabilities, resilience capabilities and organizational effectiveness," *The International Journal of Human Resource Management*, vol. 30, no. 8, pp. 1370-1392, 2019. <https://doi.org/10.1080/09585192.2016.1216878>
- [5] D. Katsamba and R. Pellissier, "Organisational innovation success factors that supported survival and growth of businesses despite volatility in the global environment," *International Journal of Organizational Innovation*, vol. 14, no. 1, pp. 175-191, 2021.
- [6] P. Chatzoglou and D. Chatzoudes, "The role of innovation in building competitive advantages: An empirical investigation," *European Journal of Innovation Management*, vol. 21, no. 1, pp. 44-69, 2018. <https://doi.org/10.1108/EJIM-02-2017-0015>
- [7] A. N. Kiss, A. F. Cortes, and P. Herrmann, "CEO proactiveness, innovation, and firm performance," *The Leadership Quarterly*, vol. 33, no. 3, p. 101545, 2022. <https://doi.org/10.1016/j.leaqua.2021.101545>
- [8] C. Salvato and R. Vassolo, "The sources of dynamism in dynamic capabilities," *Strategic Management Journal*, vol. 39, no. 6, pp. 1728-1752, 2018. <https://doi.org/10.1002/smj.2703>
- [9] M. Kozak, "Determinants of business survivability: Literature review," *International Journal of Synergy and Research*, vol. 6, p. 183, 2018.
- [10] B. Wernerfelt, "A resource-based view of the firm," *Strategic Management Journal*, vol. 5, no. 2, pp. 171-180, 1984. <https://doi.org/10.1002/smj.4250050207>
- [11] J. Barney, "Firm resources and sustained competitive advantage," *Journal of Management*, vol. 17, no. 1, pp. 99-120, 1991. <https://doi.org/10.1177/014920639101700108>
- [12] D. Masumba, *Leadership for innovation: Three essential skill sets for leading employee-driven innovationa*. New York: Morgan James Publishing, 2019.
- [13] Organisation for Economic Co-operation and Development (OECD), *OECD annual report*. Paris: OECD Publishing, 2005.
- [14] J. Partanen, S. K. Chetty, and A. Rajala, "Innovation types and network relationships," *Entrepreneurship Theory and Practice*, vol. 38, no. 5, pp. 1027-1055, 2014. <https://doi.org/10.1111/j.1540-6520.2011.00474.x>
- [15] P. Caligiuri, H. De Cieri, D. Minbaeva, A. Verbeke, and A. Zimmermann, "International HRM insights for navigating the COVID-19 pandemic: Implications for future research and practice," *Journal of International Business Studies*, vol. 51, no. 5, pp. 697-713, 2020. <https://doi.org/10.1057/s41267-020-00335-9>



- [16] H. Do, C. Patel, P. Budhwar, A. A. Katou, B. Arora, and M. Dao, "Institutionalism and its effect on HRM in the ASEAN context: Challenges and opportunities for future research," *Human Resource Management Review*, vol. 30, no. 4, p. 100729, 2020. <https://doi.org/10.1016/j.hrmr.2019.100729>
- [17] P. Kautish, S. Hameed, P. Kour, and S. Walia, "Career beliefs, self-efficacy and VUCA skills: A study among generation Z female students of tourism and hospitality," *Journal of Hospitality, Leisure, Sport & Tourism Education*, vol. 30, p. 100340, 2022. <https://doi.org/10.1016/j.jhlste.2021.100340>
- [18] A. Horstmeyer, "How VUCA is changing the learning landscape—and how curiosity can help," *Development and Learning in Organizations: An International Journal*, vol. 33, no. 1, pp. 5-8, 2019. <https://doi.org/10.1108/DLO-09-2018-0119>
- [19] N. Bennett and G. J. Lemoine, "What a difference a word makes: Understanding threats to performance in a VUCA world," *Business Horizons*, vol. 57, no. 3, pp. 311-317, 2014. <https://doi.org/10.1016/j.bushor.2014.01.001>
- [20] H. Do, P. Budhwar, H. Shipton, H.-D. Nguyen, and B. Nguyen, "Building organizational resilience, innovation through resource-based management initiatives, organizational learning and environmental dynamism," *Journal of Business Research*, vol. 141, pp. 808-821, 2022. <https://doi.org/10.1016/j.jbusres.2021.11.090>
- [21] M. Riviere, A. E. Bass, and U. Andersson, "Dynamic capability development in multinational enterprises: Reconciling routine reconfiguration between the headquarters and subsidiaries," *Global Strategy Journal*, vol. 11, no. 3, pp. 380-401, 2021. <https://doi.org/10.1002/gsj.1389>
- [22] D. J. Teece, *A dynamic capabilities-based entrepreneurial theory of the multinational enterprise*. London: Springer, 2016, pp. 224-273.
- [23] L.-Y. Wu, "Applicability of the resource-based and dynamic-capability views under environmental volatility," *Journal of Business Research*, vol. 63, no. 1, pp. 27-31, 2010. <https://doi.org/10.1016/j.jbusres.2009.01.007>
- [24] K. B. Boal and R. Hooijberg, "Strategic leadership research: Moving on," *The Leadership Quarterly*, vol. 11, no. 4, pp. 515-549, 2000. [https://doi.org/10.1016/S1048-9843\(00\)00057-6](https://doi.org/10.1016/S1048-9843(00)00057-6)
- [25] R. D. Ireland and M. A. Hitt, "Achieving and maintaining strategic competitiveness in the 21st century: The role of strategic leadership," *Academy of Management Perspectives*, vol. 19, no. 4, pp. 63-77, 2005.
- [26] A. A. Thompson, A. J. Strickland, and J. E. Gamble, *Crafting and executing strategy: The quest for competitive advantage*. New York: McGraw-Hill Education, 2021.
- [27] D. J. Teece, "Technological innovation and the theory of the firm: The role of enterprise-level knowledge, complementarities, and (dynamic) capabilities," *Handbook of the Economics of Innovation*, vol. 1, pp. 679-730, 2010.
- [28] S. Benmira and M. Agboola, "Evolution of leadership theory," *BMJ Leader*, vol. 5, no. 1, pp. 3-5, 2021. <https://doi.org/10.1136/leader-2020-000296>
- [29] R. M. Stogdill, "Leadership, membership and organization," *Psychological Bulletin*, vol. 47, no. 1, p. 1, 1950.
- [30] Y. Safonov, Y. Maslennikov, and N. Lenska, "Evolution and modern tendencies in the theory of leadership," *Baltic Journal of Economic Studies*, vol. 4, no. 1, pp. 304-310, 2018.
- [31] F. E. Fiedler, "The contingency model and the dynamics of the leadership process," *Advances in Experimental Social Psychology*, vol. 11, pp. 59-112, 1978. [https://doi.org/10.1016/S0065-2601\(08\)60005-2](https://doi.org/10.1016/S0065-2601(08)60005-2)
- [32] F. E. Fiedler, "The contingency model: A theory of leadership effectiveness," *Small Groups: Key Readings*, vol. 369, pp. 60051-9, 2006.
- [33] F. E. D. Fiedler, *Contingency theory of leadership in organizational behavior 1: Essential theories of motivation and leadership*. London: Routledge, 2015.
- [34] P. J. Schoemaker, S. Heaton, and D. Teece, "Innovation, dynamic capabilities, and leadership," *California Management Review*, vol. 61, no. 1, pp. 15-42, 2018.
- [35] M. S. Nazir, M. M. Nawaz, and U. J. Gilani, "Relationship between economic growth and stock market development," *African Journal of Business Management*, vol. 4, no. 16, p. 3473, 2010.
- [36] L. Purnomo, "Firm size, firm age, sales growth, managerial ownership and tax avoidance," *Jurnal Akuntansi Dan Bisnis*, vol. 21, pp. 102-115, 2021.
- [37] A. Oke, F. O. Walumbwa, and A. Myers, "Innovation strategy, human resource policy, and firms' revenue growth: The roles of environmental uncertainty and innovation performance," *Decision Sciences*, vol. 43, no. 2, pp. 273-302, 2012. <https://doi.org/10.1111/j.1540-5915.2011.00350.x>
- [38] G. Gunday, G. Ulusoy, K. Kilic, and L. Alpan, "Effects of innovation types on firm performance," *International Journal of Production Economics*, vol. 133, no. 2, pp. 662-676, 2011. <https://doi.org/10.1016/j.ijpe.2011.05.014>
- [39] M. Samimi, A. F. Cortes, M. H. Anderson, and P. Herrmann, "What is strategic leadership? Developing a framework for future research," *The Leadership Quarterly*, vol. 33, no. 3, p. 101353, 2022.
- [40] E. Sultanow, J.-N. Duane, and A. M. Chircu, "Skills for sustainable enterprise architectures in a VUCA world," in *Proceedings of the 15th International Conference on Wirtschaftsinformatik* 2020.