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Continuous Organizational Agility in a Highly Regulated Industry

***Abstract:* -** Unlike those in other industries, highly regulated entities, such as banks, are required to be agile to business uncertainties and unforeseen risks while complying with the growing regulations. Moreover, banks pose constant challenges in the form of digitization, globalization, automation, analytics, and other forces of change that will continue to accelerate; thus, implementing a short-term agile transformation strategy will burden the company with inefficiencies. Expanding organizational and strategic management theory for the conceptualization, continuous organizational agility will follow as the manifestation of the intertwined routine dynamics-dynamic capabilities-organizational agility relationship. This study reviewed, synthesized, extended the literature, and proposed the research idea based on the relationship between routine dynamics, dynamic capabilities, and their impact on organizational agility in an integrated model. Generally, the proposed model aims to clarify: (1) the ability of an agile company to maintain stability while being dynamic and (2) the development of a more efficient trade-off between agility and efficiency during the agile transformation process. This study may provide fruitful avenues for enriching literature and future study since a dearth of empirical evidence addresses the relationship.

Keywords: Organizational agility, Routine dynamics, Dynamic capabilities, Continuity.

I. Introduction

Over the vast list to resolve, Banks, as a highly regulated sector, have proven their capabilities to strive and succeed in some crises, indicating their agility. Especially for Indonesian banks, operational and routine issues arise, such as a shortage of high-quality talent in the digital age [1], poor competitiveness with low investment, and economies of scale compared to ASEAN [2]. Organizational agility allows banks to adapt to external changes quickly and effectively and respond to changing customer expectations. It will assist banks in improving economic resilience through swift adjustments such as revolutionary digital banking acceleration [3]. Moreover, organizational agility encourages flexibility to comply with changing rules and to take advantage of financial industry opportunities. Financial organizations can prepare to respond rather than react to change, aligning with McKinsey's Global Survey 2021, which revealed that the financial sector was the second leading industry prioritizing agile transformation [4]. Unfortunately, only a few organizational agility studies can be found regarding banking [5] or other financial institution contexts, specifically in relation to its highly regulated characteristics.

The need for speed is not temporary; digitization, globalization, automation, analytics, and other forces of change will continue accelerating. To sustain organizational agility, organizations must balance company consistency and stability with flexibility and change [6], [7]. First mentioned by Wouter et al. (2015) [8] that agility should rhyme with stability, reported by Martin (2017) [9] using the dynamism-stability framework, only 25% of their research respondents' organizations are agile, and the remaining still lack either dynamism, stability, or both. This statement was also challenged by Tallon et al. (2019) [10] regarding how the organization does it. This study recommends involving routine dynamics variables theorized as the source of stability and change [11], [12] to promote continuity through the patterning process of employee behavior[13]. This adoption becomes more relevant to the context, revealing how a strict organizational process can sustain dynamism and agility.

On the other side, but still related, given the advantages of organizational agility, researchers and practitioners have suggested various strategies to foster agility in organizations while still efficiently maintaining organizational

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agility for a long time. Leading firms succeed in a dynamic, unpredictable, complicated, and ambiguous environment by embracing agility at a scale and understanding how agility and efficiency are related [14]. Adopting a dynamic capability approach to their business strategy will allow organizations to stay current by quickly accessing and accurately reconfiguring the most recent information [15]. Dynamic capability also helps a company decide the right time to implement organizational agility, thus optimizing the efficiency-organizational agility trade-off [14]. Establishing a sustained agile company necessitates a management approach and strategy that enables enterprises to sense what is moving in their surroundings, build and analyze possible opportunities, and make rapid changes [14], [16]. Agility enablers need the constant integration of actions into the company's activity system and monitoring interactions with others and the environment.

Expanding the area of organizational agility research to the routine level of the organization, involving actors, systems, and interactions of organizational elements in collaboration with the company's dynamic capability, may result in the continuity of organizational agility. Banks must consider continuous organizational agility with their existing resources to promote better performance, efficiency, and higher organizational agility for incoming perpetual uncertainty. This study proposes a model that explores the relationship between routine dynamics, dynamic capabilities, and organizational agility to comprehend better and scrutinize continuous organizational agility. This initial attempt aimed to conceptualize continuity, recognizing the need for future studies to enhance understanding in an area that has gained significant interest and importance in recent years due to rapid environmental change. The proposed model attempts to stimulate discussion and further investigation on this subject.

II. THEORETICAL FOUNDATION

A. Organizational Agility (OA)

An organization's long-term success depends mainly on strategic management decisions and actions [17]. The strategic planning mechanism, referring to contingency theory, cannot be static over time or similar across different organizational levels. Guerras-Martín et al. (2014) [18], in their evolution of strategic management research study, found that agility for competitiveness becomes much more critical as the primary lens of competition shifts from advantage to opportunity and away from industry position or resource possession as the sole reason for a firm's competitiveness.

Since the 1980s, various educational areas have examined organizational agility [19]. Initially, organizational agility was viewed as responding to external events, such as competitive pressures in the marketplace, and increasing the speed of decision-making. This definition has been persistently refreshed by various perspectives and adjustments related to the research context. In the 1990s, agility was increasingly seen as a way for organizations to achieve competitive advantage. The research contexts were around the building block of organizational agility, mainly in the manufacturing industry [20]. In the 2000s, agility was explored from a broader perspective, examining how organizations can build capabilities to adapt to changing business environments quickly and how technology enables organizational agility implementation [21]. Researchers have recently explored how different organizational structures, processes, and cultures can facilitate agility in a crisis [22].

Most of the research on organizational agility has been undertaken in the context of manufacturing [23], telecommunications, and small and medium-sized enterprise (SME) industries [24], [25], and studies on banking are still relatively rare, especially in Indonesia. This contrasts with the fact that Indonesia's bank has maintained its continuous post-crisis existence, which should be considered agility in a continuous way. Panda and Rath conducted studies on Indian financial service institutions (banks) by looking at several perspectives, such as IT capability and IT spending [26], [27], knowledge management and external environment [28], and strategic business-IT alignment [29]. Similar studies from different angles have also been conducted in Russia [30], the Middle East [5], and Iran [31]. However, these studies point to the importance of organizational agility for the bank as one of the Financial Service Institutions (FSI) over the challenges it faces, and as Aghina et al. (2021) [4] reveal, FSI, like the bank, is on the second front of the industry sector, performing the agile transformation.

Organizational agility is essential for an FSI, especially a bank, to remain competitive and maximize profits. Banks and other FSI will have to react rapidly to several disruptive trends and unforeseen risks [32] in the coming years and must be agile to stay ahead in a competitive climate. Banks must respond quickly to market and customer needs changes, adapt to new technologies, and make effective decisions [33]. Organizational agility also requires banks to have a clear understanding of the regulatory environment and to be able to adjust operations accordingly.

B. Dynamic Capabilities (DC)

Dynamic capabilities are a firm's ability to adapt to changing conditions by combining, enhancing, and rearranging internal and external capabilities [34]. They are part of a strategy and resource system that determines how much an enterprise is aware of competitive pressures in the face of rapidly changing technologies, as well as dealing with uncertain circumstances concerning market opportunities and evolving regulatory situations at home and on a broad scale [14], [16]. Dynamic capabilities unify the resource-based view theory [35] that perceives the stability of competitiveness with different types of management studies into a single theory about how companies gain competitiveness [36].

When a company, including a bank branch [37], has dynamic strategic skills, it may build, extend, modify, transform, and reconfigure its substantive capabilities, fostering an attitude of sustained rivalry and maintaining its aptitude to evolve through adaptation, absorption, and innovation capabilities [38], [39]. As a result, it is critical to comprehend the underlying organizational capabilities that could aid FSI in developing organizational agility [40].

The dynamic capabilities sense, seize, and transform approach enables firms to adapt to market conditions and create products and services in response to technology disruptions' high levels of flux and uncertainty [41]. The shift from traditional to new banks is unavoidable because banks must adapt to disruptions, pandemics, and unpredictable business uncertainties. Agile newcomers who prioritize customer experience pose a threat to traditional FSI.

Incumbents attempt to stay efficient while competing with challenger banks that offer more adaptable, individualized services. Thus, the involvement of dynamic capabilities will be needed to change these challenges into opportunities, achieving agility in an efficient manner.

C. Routine Dynamics (RD)

The concept of a flexible routine or routine dynamics can be considered an ever-evolving system with an underlying pattern and dynamism that can yield a wide range of results along the continuum within "extremely stable" and "changing constantly" [42]–[44]. Routine dynamics address this issue by categorizing routine components as ostensive or performative [11]. The concept of ostensive pertains to the standardized and idealized representation of a routine, while the performative pertains to the actual execution of the routine in practice, allowing employees to improvise while completing their routines and reducing inertia. Feldman et al. (2016)[45] discussed the theoretical foundations and consequences of routine dynamics, arguing that differences in purposes and strategies in specific performances can explain routine enactment and ostensive pattern shifts. In the ostensive routine aspect, organizational routines are neither stable "things" nor fully recorded and assessed by artifacts such as manuals and procedures. The concept is the ostensive part of the routine, and realization is the performative aspect [46].

Feldman and Pentland (2003) [11] identified the other part of the routine that reflects performances complying with established norms and standards, yet actions are often somewhat original and named performative. The performative part of a routine is believed to be the source of flexible responses that highlight the value of the internalized activity experience in initiating action and forming pathways [13]. Learning from entrepreneurs who manifest a high level of improvisational actions generates better innovative performance [47], which is impactful in unexpectedly and rapidly changing environments [48]. Employees need to think on their feet and act decisively and confidently. The degree of freedom in performative helps employees collaborate better since they can quickly adapt to different perspectives, critically think, and problem-solve creatively and be innovative, creative, and proactive in challenging situations [49].

Studies have emphasized the significance of comprehending routine dynamics in investigating fundamental organizational concepts, such as stability, change, and flexibility [50], [51]. This conditionally provides a clue for what has been revealed by Lindskog and Netz (2021) [6] and Prange (2021) [7]: to sustain agility, there is a need to balance stability and change. The duality function of routine dynamics [46] to promote organizational agility is explicitly mentioned by Crick and Chew (2020) [52]: both top-down planning and bottom-up routinization generate business processes in the company.

In financial services, commitment must balance standardized and unique characteristics [53]. Tuominen et al. (2020)'s [54] conceptual framework shows how value co-creation happens during service company change, how the ostensive, performative, and artefactual parts of institutional rules and routines must align for any change to happen, and this alignment is made through planned and practice-based activities throughout the institutional change. They demonstrate that the same routine can be oriented differently in different areas of the focused job and provide a dynamic awareness of routine interdependence and ostensive pattern coordination. Highly regulated FSIs are commonly perceived to be associated with hierarchical organizational structures. Improvisation accelerates innovation in decentralized but regulated enterprises that maximize resource flexibility [55] and clarifies relational governance and firm performance [56].

D. Continuous Organizational Agility

Frequently, there are unclear and conflicting interpretations of these three variables. This is partly due to the large number of studies that use the dynamic capabilities perspective and framework in routine dynamic and organizational agility research. Some researchers see routine dynamics as the micro-foundation of dynamic capabilities, while others see organizational agility as one type of dynamic capability. However, fundamentally these three concepts are very different; where Salvato (2021)[57] has extensively discussed the distinctions between routine dynamic and dynamic capabilities from various parameters, while Teece, who is known as a leading expert in the field of dynamic capabilities, views dynamic capabilities as a separate entity that supports organizational agility [14]. Table 1 simplifies the difference between them.

Table 1. Key Different Concept

	OA	**DC**	**RD**
Definition	A flexible approach helps firms react to changing conditions and grab new opportunities.	Ability to innovate, adapt, and change that benefits consumer and threatens competition.	Recurrent and identifiable sequences of interrelated behaviors executed by various people.
Rooting theory	Contingency theory	RBV	Organization theory
Key different	Responsive action	Proactive action	Repetitive action

Organizational agility and business continuity are motivated by contingency theory, which argues that complex interrelationships between organizational factors are necessary to build exit plans for unexpected situations. Since business continuity can be through the dynamics of routines or patterning activities, this research attempts to adopt this concept for organizational agility continuity logically. Any routines underlying dynamic capabilities should be general enough to prevent management from focusing too much on experience and should be linked to generating new knowledge in real-time [38]. Awareness of the prevalence of the dynamic capabilities' viewpoint in organizational agility research, organizational elements, routine dynamics, and dynamic capabilities may be viewed as theory-based factors that are best for and may promote organizational agility continuity.

Creating value through a set of organizational activities provides the foundation for how an organization behaves in repeated actions crucial to a company's smooth operation. Strong businesses balance various agility dimensions to ensure change and stability [7]. Identifying the core agility of organizational elements, well-established routines, and the ability to capitalize on dynamic capabilities will help maintain agility over time. To complete this, organizations should track the performance of the patterns and activities over time to identify any areas for improvement or opportunities for further optimization and regularly review and refine the patterns and activities to ensure they remain aligned with the organization's goals and objectives.

Worley and Pillans (2019) [58] believe that the four habits define an agile business and suggest that a company's performance increases as the number of such routines increases. The more likely it is to accept change as a routine, the more agile an organization is. Change efforts were interwoven into typical workdays rather than designed as unusual activities [58]. Being more agile demands developing a comprehensive understanding of the linked basis of an organization's systems, activities, and strategies. Based on this conceptualization, this study defines continuous organizational agility as a persistent dynamicity of routine that balances business stability and flexibility through dynamic capabilities-based practices to improve the trade-off between agility and efficiency, competitiveness, and impacted environments, as reflected in the research model that investigates the relationships among variables.

III. PROPOSED MODEL DEVELOPMENT

This study reviewed the interweaved literature focusing on organizational agility, dynamic capabilities, and routine dynamics, synthesizing the findings to extend the body of knowledge by proposing a research idea to clarify their relationship.

The model resulted in four propositions that define each relationship.

A. Routine dynamics and dynamic capabilities

Over time, dynamic capabilities have evolved [59] from being defined as capabilities [34], with more recent evidence pointing to the importance of organizational routines [60]. However, from the earliest moments, the dynamic capabilities literature frequently mentioned the concept of routines and vice versa. In a collaborative management approach, dynamic capabilities require new product development, quality control, and technology/knowledge transfer routines [38]. Dynamic capabilities necessitate investment and commitment to higher-level change routines [61]. Changing routines (e.g., new products across a specified track) and analytical procedures (e.g., spending decisions) are complete portfolios for building dynamic capabilities [60]. Thus, dynamic capabilities are typically influenced by consistent, recurring actions that contradict the declared purpose of inducing changes in a firm’s resource base and operational capacity to handle highly dynamic conditions. Biesenthal et al. (2019) [62] study indicates that ostensive and performative routine aspects influence the role of dynamic capabilities in modifying operational capabilities. However, organizational capabilities result from the recollection of executing organizational routines [58], and splitting components between routine dynamics and dynamic capabilities may help build bridges across areas [57].

Routines are viewed as relationships between input and output and as emerging practices that evolve over their performance and, as a result, generate changes [45]. As building blocks of capabilities, routines show businesses how to utilize their existing assets best or repurpose them to generate new ones that add value to the company's operations [63]. Instead of seeing stable routines and improvisation as a trade-off, organizations must deliberately seek harmony and manage them together [64]. Lepratte and Yoguel (2023) [65] suggested using routine dynamics as an emergent way to create novel concepts related to the dynamic capabilities-building approach. By defining the effect of routine dynamics on dynamic capabilities, scholars hope to clarify what makes organizational capabilities dynamic [57] with the need for more empirical research. The following proposition is proposed:

P1: With its ostensive and performative parts, the routine dynamic will positively impact banks’ sensing, seizing, and reconfiguring capabilities.

B. Routine dynamics and organizational agility

An ostensive routine can provide a foundation for organizational agility by providing structure and consistency. Well-defined routines can facilitate efficient communication and collaboration, allowing the organization to anticipate and respond to changes in the environment in terms of speed and efficiency [11]. Performative routines that provide adjustable actions allow the organization to remain agile under changing conditions. Organizations can increase their organizational agility and impede the inertia of routine by adjusting their ostensive routine to suit the demands of the business market better [66] and optimizing performative routines with their improvisational characteristics [67]. By taking a routine dynamics approach to studying organizational inertia, Omidvar et al. (2023)[68] analyzed the crucial part algorithms play in creating and conserving dynamic inertia by sense and reaction to environmental dynamism and uncovered mechanisms by which businesses dynamically produce inertia through behaviors that fail to trigger substantial changes. Thus, routine dynamics, which constitute both the ostensive and performative part, will support organizational agility because of their superior speed and flexibility; obtaining these qualities effectively and managing change efficiently leads to maintaining continuity.

Interaction and teamwork can be improved by clearly stated routines, which allow the organization to quickly adjust to changes in the external environment [11]. When consistency exists, repeated interpretations are produced, which assist employees in adjusting to change and produce visible patterns of flexibility; in turn, consistent patterns of flexibility are required when dealing with changing circumstances to establish consistency [69]. While Wouter et al. (2015) [8] suggest that agile company's rhythm with stability, Lindskog and Netz (2021) [6] and Prange (2021) [7] agree that organizations should balance stability and change to promote agility. Moreover, since prior studies have not confirmed a direct link, these conceptual arguments must be empirically proven through the following proposition.

P2: Routine dynamics balance the stability and change that can be the source of continuity for organizational agility.

C. Dynamic capabilities and organizational agility

Dynamic capabilities enable an organization to be more agile and adaptable to changing market conditions [14] since they offer the ability to sense and respond to changes in the environment swiftly, enabling an organization to respond swiftly to changes in the external environment and enable the organization to adjust its strategy, structure, and processes to better compete in a rapidly changing environment.

Management must prepare the organization for sensing, seizing, transforming, and matching the correct strategy to its organizational agility [14]. The dynamic capabilities framework helps to explain organizational agility's costs and benefits, whether to increase agility and when to sacrifice it. Empirical evidence has shown that dynamic capabilities favor organizational agility [70]. Some previous organizational agility research has built frameworks using the dynamic capabilities concept. Baškarada and Koronios (2018) [71] examined and operationalized organizational agility using five dynamic capabilities perspectives, while Harsch and Festing (2020) [72] discovered three dynamic talent management capabilities that enhance organizational agility.

Others view organizational agility as a form of dynamic capability [19]. Although they are referred to by Teece et al. (1997) [34], this standpoint is inconclusive among academics, as even in his dynamic capabilities studies, which continued to distinguish between organizational agility and dynamic capabilities (e.g., Teece et al. (2016) [14] classified dynamic capabilities as a separate capability to facilitate cost-effective organizational agility implementation). To clarify this, the following hypothesis is proposed.

P3: Dynamic capabilities enhance decision-making efficiency by enabling a precision exploitation strategy that enhances banks' organizational agility.

D. Dynamic capabilities as mediating variable

Dynamic capabilities can strengthen the relationship between routine dynamics and organizational agility by enabling organizations to rapidly adapt their routines to changing market conditions and customer needs [73]. By engaging in dynamic capabilities such as learning, sensing, and seizing, organizations can gain the insights needed to anticipate and respond to external changes. This can help organizations maintain agility while leveraging their existing routines to support more efficient operations [14]. In this way, dynamic capabilities can help organizations become more agile and responsive while still leveraging the stability of their organizational routines [71].

Explaining dynamic capabilities as a "strategic" higher-order routine that alters "operational" lower-order processes introduces dynamism to the idea; in other words, the dynamics inside dynamic capabilities act as drivers of routine-based organizational transformation [60]. Although there may be written policies outlining the ostensive aspects of this routine, performance varies depending on several factors [62]. This emphasizes the unique way staff members practice and articulate the performative aspects of these responsibilities in addition to the more obvious ostensive ones.

Furthermore, a company may employ “frameworks” to steer the process of reconfiguring operational capabilities, where each "framework" represents a comprehensive part of a reconfiguring routine that would be done differently, representing routine performative elements [62].

Rather than only intended to serve organizational agility continuity, the following statements are proposed:

P4: Routine dynamics require developing capabilities to bridge activity patterns and enhance organizational agility.

The research model is then proposed as follows.

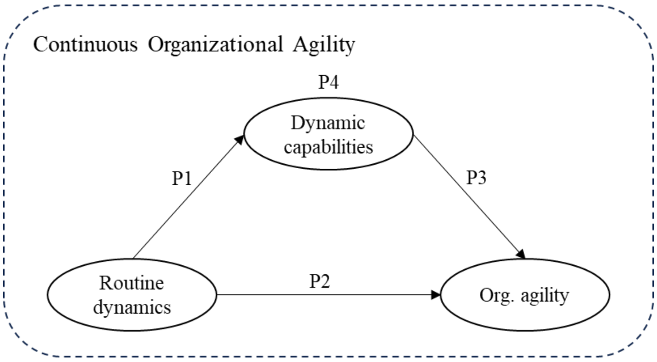

Fig 1. Proposed Research Model

The interaction between routine theory and RBV enables scholars to address the costly strategy issues that emerge from short-term organizational agility in the following ways. First, routine dynamics theory is proposed to balance stability and change to facilitate continuity. Patterning activities in routine dynamics explain how transformation occurs [74] and enacts continuity [13]. Second, the study reiterates the concern that dynamic capabilities are the source of efficient organizational agility [14].

These models can be empirically tested using PLS-SEM since the routine dynamics are built using two formative dimensions, and the banking sector tends to have fewer players than other industries. For the research instrument, future researchers can consider the following variables' operationalization references:

- A 9-item scale for measuring routine dynamics (four for the ostensive and five for the performative part) was adapted from Breslin (2022) [50] and D’Adderio (2008, 2011) [75].

- Items for assessing dynamic capabilities were adapted from Monferrer Tirado et al. (2019) [37], who explained a total 11-item scale based on Eisenhardt & Martin (2000) [38] & Teece (2007) [39]. This measurement item is used in the banking context.

- For organizational agility, a 6-item scale (each 3 for operational adjustment and market capitalizing agility) was adapted from Al-Darras and Tanova (2022), Mao et al. (2021), and Panda and Rath (2021) rooting in Lu and Ramamurthy (2011) [76].

E. Further Implication for Strategic Management Research

With the extension of research scopes, future research may develop the research model based on the following framework, involving the possible antecedents and moderators to achieving business performance that reflects a comprehensive strategic management stage.

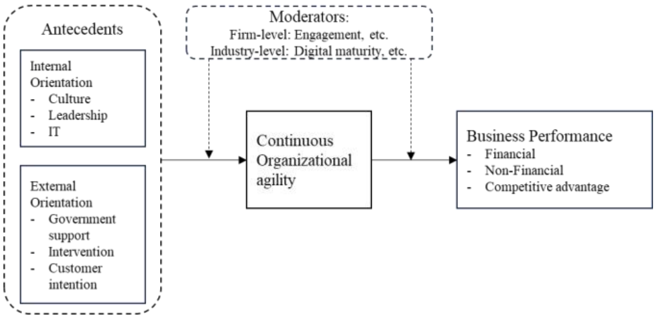

Fig. 2 Extended Research Model

Drawing on the "unify science" philosophy of system theory [77], the management field sees organizations as a dynamic system of interrelated elements [78] that, in practice, these theories work together to achieve organizational goals.

The antecedents can be internal, external, or both orientations. Leadership, organizational culture, and IT enablers are the top three internal elements most often mentioned in organizational agility literature [24]. Moreover, as a highly regulated industry, the success of banks' strategic decisions and planning is closely tied to their response to government policies. Inadequate governmental support is one of the potential challenges banks could encounter as such environmental uncertainty, so they must be able to swiftly reconfigure or reengineer their internal business processes to identify environmental uncertainties ahead of their competitors [28]. Over the last decade, the financial sector has experienced rapid change and growth [79] with increased customer expectations, competitive markets, and technological advancements. Banks will confront various hurdles in the next ten years, while at the same time, the sector must comply with all increasing laws and regulations [80]; therefore, external orientation, government support, interventions, and customer orientation should be considered as antecedents that can influence banks' continuous agility.

Firm-level and industry-level attributes can encourage the model to have moderator roles, such as engagement or digital maturity, which still lack attention to be included in agility studies. In a strategic management framework, the interaction between variables leads to business performance and competitive advantage.

IV. CONCLUSION

The bank responded quickly and decisively to the initial wave of the crisis, and this effort has significantly contributed to global economic recovery. While some perception sees the legacy systems of incumbents as often inflexible and difficult to update, resulting in a lack of agility and responsiveness, this study sees from the other side that the standardized systems inside the highly regulated routine contribute to stabilizing the dynamism of change, thus making agility more sustained than just treated as an incidental program. Practically, the research will explore alternative solutions to face potential opportunities and challenges and offer recommendations for organizations to remain competitive and thrive under regulations to comply by optimizing the fundamental operation inside the organization.

The proposed empirical quantitative approach adds to the organizational agility body of knowledge through two theoretical collaborations. This study clearly recommends routine dynamics from organization theory to promote continuity and dynamic capabilities for efficient organizational agility based on strategic management theory.

Despite the importance of this topic, the literature facilitating empirical evidence is still lacking. This calls for future research to address this need, especially in a highly regulated environment.

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