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ORGANIZATIONAL AMBIDEXTERITY: THE ROLE OF TECHNOLOGICAL CAPACITY AND DYNAMIC CAPABILITIES IN THE FACE OF ENVIRONMENTAL DYNAMISM Tyna Yunita1, Sasmoko2, Agustinus Bandur3, Firdaus Alamsjah4 Abstract: Organizational ambidexterity has been widely established as necessary for economic sustainability in the financial services sector. Organizational ambidexterity is an organization to be aligned and efficient in management to meet business needs while simultaneously adapting to environmental changes. To meet the challenges of the new digital economy, banking organizations require substantial technological changes and must also recognize that the banking business itself is one of technology.

Organizational ambidexterity is essential for financial sector businesses, but their relationship and relative merits are unclear. This research focuses on the role of technological capacity and dynamic capability of the banking sector in Indonesia in an effort to achieve organizational ambidexterity in the face of a dynamic environment. This research uses quantitative methods by surveying leaders from Indonesian commercial banks and analyzed using the SMART PLS program.

Our investigation found that technological capacity influences organizational Ambidexterity, with the link becoming stronger when mediated by an organization's dynamic capability. In the meantime, environmental dynamism has no impact on the organizational ambidexterity of the banking sector in Indonesia. Our findings also indicate that the associated security risk will increase if a bank improves its technological capacity in a highly dynamic environment.

This paper is an empirical study of technological capacity and presents a method for creating organizational ambidexterity through dynamic capability, especially in the

banking sector. Keywords: technological capacity, dynamic capability, organizational ambidexterity, environmental dynamism, commercial bank 1. Introduction The interrelatedness between organizational ambidexterity, open innovation, and the micro-foundations of dynamic capabilities has only been partly researched within the literature (van Lieshout et al., 2021).

Recently, many researchers have raised the topic of organizational ambidexterity as important in the success of companies (Kafetzopoulos, 2020). Organizational ambidexterity is the organization's ability to be coordinated and efficient in management to satisfy business goals while also being able to adapt to environmental changes (Raisch & Birkinshaw, 2008). The antecedents that drive or become ambidextrous actors still need to be studied continuously to understand the mechanisms, dynamics, and variables of how companies actually achieve ambidexterity (Binci et al., 2020).

A critical research subject is the antecedent theory of organizational ambidexterity, which analyzes ways of concurrently pursuing exploration and exploitation (Suzuki, 2019). Meeting the sustainability challenge also requires incumbents to transform their activities. Such transformation, however, must be conducted while maintaining its operations and customer satisfaction. Organizational ambidexterity is essential for financial sector businesses, but their relationship and relative merits are unclear (Callegari & Rai, 2021).

In comparison, state-owned commercial banks have the lowest cost efficiency and operate with the least amount of technology, which is negatively related to fintech (Lee et al., 2021). Fintech not only improves the cost-effectiveness of banks but also multiplies their technological utilization (Lee et al., 2021). In this situation, the function of banking technology discovery and exploitation is crucial to addressing future business issues.

Looking at the expansion of current banking innovations demonstrates that financial innovation may enhance the diversity of banking services, strengthen the capacity to share bank risks, and improve resource allocation efficiency (Lee et al., 2021). Banks are quickly modernizing and expanding their services in the banking sector by incorporating new technology to speed service delivery, enhance service quality, and provide clients with individualized experiences (Khue Ngo et al., 2022). Innovation, detection, adaptation, absorption, and integration are capabilities that allow reaching, in most cases, the managerial skills oriented to save costs, increase efficiency and achieve more competitiveness (Gallego-Gomez & De-Pablos-Heredero, 2020). Dynamic capability cannot directly affect banking performance in the short term, but it may be a bridge to

ambidexterity and firm performance (Monferrer Tirado et al., 2019).

When market rivalry intensifies and gets more complicated, the complexity of technology likewise increases, and organizations can no longer rely on their existing technology and capabilities to improve their services (Tsai & Hsieh, 2009). Technological innovation drives the development of technically and economically viable products (Kahle et al., 2020). Companies that can penetrate the world's technical frontiers and access cutting-edge technology are productive and contribute to higher performance (Elkomy et al., 2021; Reggiani & Shevtsova, 2018).

Companies must aggressively seek new chances to exploit and improve technological capabilities to deal with the current essential environmental circumstances (W. M. Cohen & Levinthal, 1990). In times of extreme volatility and uncertainty, organizations must build organizational capability to manage unforeseen events successfully (Alamsjah, 2022). The banking sector has encountered challenges recently due to innovative business models such as fintech and super apps.

The dynamics of the Covid- 19 pandemic have also colored the challenges in the banking sector because it directly affects the company's human capital policies due to changes in how employees work. The banking sector is a context of organizational ambidexterity because of its nature, size, and importance, but also because of the regulatory constraints it faces regarding the scope of its mission, all of which affect the pursuit of new opportunities (Campanella et al., 2016). While the topic of ambidexterity has been used as a strategy, the turbulent environment that impacts ambidexterity in emerging countries remains under-researched (Ochie et al., 2022).

Furthermore, a solid and efficient banking system is critical to a country's macroeconomic stability (Goyal et al., 2018). Commercial banks in Indonesia need to be ambidextrous to exist, operate well, and maintain sustainability. In light of the absence of empirical studies on ambidextrous commercial banks in Indonesia, this article seeks to investigate these interactions by employing technological capacity and dynamic capabilities in the face of environmental dynamism. The remaining sections of this paper are structured as follows.

In order to achieve ambidexterity in the context of developing countries, we will first review the pertinent literature in the areas of technological capacity, dynamic capabilities, and environmental dynamism. Given the absence of empirical studies on ambidextrous commercial banks in Indonesia, this study will investigate the interaction of variables and the foundation for organizational ambidexterity. What if this hypothesis is applied to the banking sector in the dynamics of the environment, especially in

Indonesia.

Studies on technological capacity in companies are still rarely carried out in developing countries, so this research topic is important to be researched. Second, studies conducted by several previous researchers show that companies that access innovations and technologies from a dynamic capability point of view affect ambidexterity (Wu et al., 2020). This study will discuss the role of technological capacity from the point of view of dynamic capabilities in environmental dynamism.

Third, driving processes, practices, and routines that can create the capacity to organize and combine exploration and exploitation from an individual level and a tiered framework can provide unique insights into how ambidexterity as a dynamic capability at an organizational level can be built. We want to look at the dynamic capability perspective as an essential component of organizational ambidexterity in the banking sector, especially in Indonesia. To answer the research questions posed, this study is organized as follows. It starts with an overview of the relevant literature and discusses the main topics.

After this theoretical section, the research methodology is described, and hypotheses are formulated, followed by a discussion of the results obtained. The study concludes with contributions and suggestions for future research. 2. Literature review With increasingly complex and rapid environmental changes, dynamic capabilities have become a winning strategy for companies to acquire a competitive advantage (Úbeda-García et al., 2022). Along these lines, O'Rly Tushman (2008) state that dynamic capabilities reflect organizational skills manifested in top management decision-making and allow the exploitation of current abilities and the development of future abilities.

Therefore, ambidexterity is a valuable complement to the dynamic capabilities perspective because it clarifies the strengths and weaknesses of management decisions around finding and benefiting from opportunities and reconfiguring internal activities (Birkinshaw et al., 2016). Ambidexterity has been defined as an organization's ability to simultaneously pursue exploratory and exploitative activities (Jansen et al., 2008; Tarba et al., 2020) and manifests itself in firms' ability to form a balance between opportunity-seeking (i.e., exploration), and advantage-seeking (i.e., exploitation) activities (Dai et al., 2017).

Organizational ambidexterity refers to an organization's capacity to both explore and exploit in order to compete in mature technologies and markets where efficiency, control, and incremental improvement are valued, as well as in new technologies and markets where flexibility, autonomy, and experimentation are required (O'Reil& 2013) .

Contextual ambidexterity is highly relevant for new product invention and organizational success, especially in dynamically operating high-tech companies (Wang & Rafiq, 2014).

Ambidextrous organizations need a dynamic capability that allows them to mobilize, coordinate, and integrate distributed conflicting efforts, as well as to allocate, reallocate, combine, and recombine resources and assets across dispersed exploratory and exploitative units (Jansen et al., 2006; Jansen, Tempelaar, van den Bosch, et al., 2009). Successful businesses must be capable of blending exploratory and exploitative energies to become ambidextrous (Li, 2016). The importance of technology in an organization's day-to-day operations significantly impacts its viability (Lember et al., 2018). The significance of technology in the banking industry suggests that it is cost- effective (Ardizzi et al., 2019).

Technology, such as information and communications technology (ICT), has a positive effect on banking performance and improves the financial stability of the banking industry by deploying technology more broadly (e.g., IT and financial technology) (Del Gaudio et al., 2021). 2.1. Technological Capacity (TC) and Organizational Ambidexterity (OA) Companies and organizations have a technological capacity based on their technical knowledge. A high technological capacity indicates the ability to develop and enrich technology, which enables businesses and organizations to cultivate ideas and solutions for their products and services (Tsai & Hsieh, 2009).

The capability to acquire new external technologies is called technological capacity (Moon, 1998). Absorptive capacity refers to a company's ability to perceive the value of further external information, comprehend it, and economically utilize it (W. M. Cohen & Levinthal, 1990). Moreover, Parrilli et al. (2020) argue that technological capacity generates science and technology-based innovation. Therefore, technological capacity and absorptive capacity are tightly connected. Technological capacity is the ability to research, develop, and adopt new technical solutions in service design, delivery, and evaluation (Lember et al., 2018).

To succeed with a digital business model, organizations need access to cutting-edge technology and technological capacity (Menchini et al., 2022). Human resource development relies heavily on introducing novel technologies and expanding technological capacity (Nevado-Peña et al., 2019). Technological capacity is a company's capability to deploy new technical and scientific information, creative technological processes, and understanding of current technologies to meet the difficulties of a competitive environment (Ahmad et al.,

2014; Andrade et al., 2020). Technological capacity facilitates the organization's recovery from commercial disruptions caused by the COVID-19 pandemic, and technology can boost company resilience (Doerr et al., 2021). In addition, this skill enables the organization to generate science and technology in engineering tasks (Andrade et al., 2020). It is not simple to evaluate the technological capacity of an industry and its linked worldwide technological boundaries (Kaplan, 2012). To satisfy the demands of the new digital economy, banking institutions must make significant technical changes.

The bank's leadership team must also acknowledge that the bank's business is a technology (Walker & Morris, 2021). High ambidextrous organizations are able to achieve breakthrough innovation while also making steady improvements to an existing business (Ferreras- Méndez et al., 2022). Building technological capacity enables companies to effectively integrate and combine external technological knowledge (exploration) with existing knowledge (exploitation) to generate better new product sales (Tsai & Hsieh, 2009).

Companies with robust technological absorptive capacity can have a better ability to achieve organizational ambidexterity, while insufficient technological absorptive capacity is an obstacle to being better at technological knowledge and organizational ambidexterity (Mahmood & Mubarik, 2020). The competition of technological and market capabilities where efficiency, control, and incremental improvement are the values, as well as the competition of new technologies and markets where flexibility, autonomy, and experimentation are the needs are the path to organizational ambidexterity (Oly al. 2013). In general, technological capacity can be an instrument in achieving organizational ambidexterity. We can make our initial hypothesis concerning organizational ambidexterity based on this evidence.

H1: Technological capacity has a significant effect on organizational ambidexterity. 2.2. Technological capacity (TC), dynamic capability (DC), and organizational ambidexterity (OA) Organizations with core competence can integrate technologies and add varied production skills (Qu et al., 2022). The supply of technology will benefit organizations capable of assimilating it internally and externally, and these organizations will gain from it (González-Moreno et al., 2019; Valdez- Juárez & Castillo-Vergara, 2021).

Through dynamic capabilities, organizations reconfigure present capabilities and generate and upgrade other capabilities (Jantunen et al., 2018; Patrício et al., 2021). Companies can only acquire a competitive advantage if they can seize opportunities, adjust their management techniques, apply cutting-edge technology, and continue to innovate (Feng et al., 2020; Sutopo et al., 2019). Exploitation operations, reconfiguration of existing resources, and exploration via creating new resources and their combinations

are all part of developing and implementing dynamic capabilities (Schilke, 2014).

The proposed underlying processes that comprise dynamic capabilities based on the definitions mentioned earlier and past empirical studies include (i) sensing, (ii) coordinating, (iii) learning, (iv) integrating, and (v) reconfiguring. These routines are posited as enablers of operational capability renewal (Mikalef & Pateli, 2017). A sensing capability is defined as the ability to spot, interpret, and pursue opportunities in the environment. It is perceived as imperative for firms to gather market intelligence on market needs, competitor moves, and new technologies to proactively reposition their strategic offerings (Zahra et al., 2006).

Dynamic capabilities enabled by IT to realize organizational agility can be realized in conditions ranging from relatively stable to highly uncertain environments. It validates the argument that dynamic capabilities can operate in conditions without turbulence (Mikalef & Pateli, 2017). Technological capay a itto and new cesses nd products, improve knowledge and human capital skills, and transform knowledge into high-added inputs (products and services) to increase organizational performance (Valdez-Juárez & Castillo-Vergara, 2021).

A network that explores and exploits processes learned or adopted from other firms in the form of technology motivation and adoption presents a further differentiation of the dynamic capability view and is related to the innovation and ambidexterity research streams (Rothaermel & Deeds, 2004; Vogel & Güttel, 2013). Accordingly, Rothaermel and Deeds (2004) indicated this concept "dynamicapabily whichorganizatimobize, coordinate, and integrate dispersed contradictory efforts, and allocate, combine and recombine resources and assets across differentiated exploration and exploitation unit (Mohammed Abazeed, 2020).

From the references above, the following hypothesis can be hypothesized: H2: Technological capacity has a significant impact on the dynamic capability H3: Dynamic capability has a significant effect on organizational ambidexterity H4: The effect of technological capacity on organizational ambidexterity is mediated by dynamic capability 2.3. Environmental Dynamism (ED) and Organizational Ambidexterity (OA) Environmental dynamism is a situation of instability and unpredictability in the external business environment, defined by various technologies, clients, and commodities demands (Andrade et al., 2020; Tajeddini et al., 2020; Tajeddini & Mueller, 2018; Wamba et al., 2020).

Environmental dynamism can also generate uncertainties in technological capacity and environments where competitive advantage is frequently temporary (Bierly & Daly,

2007). Technological capacity can generally improve a company's ability to respond to shocks and recover once an aggregate shock occurs (for example, after the Covid-19 pandemic) (Doerr et al., 2021). The direct effect relationship of environmental dynamism on firms' technological capacity suggests that efforts to develop products reinforce exploration and exploitation (Revilla et al., 2010).

A comparable study reported findings from a Spanish corporation demonstrating that environmental dynamism is positively associated with organizational ambidexterity, improving technological performance (Soto- Acosta et al., 2018). In a less dynamic environment, businesses strategically position themselves with cost management (efficiency), and investment in technology decreases (Andrade et al., 2020). In a dynamic environment, companies tend to direct efforts toward exploration activities (Benner & Tushman, 2003). Companies that operate on a strategy of exploitative rather than exploratory processes show a trend toward stability (Andrade et al., 2020).

In this context, the company's internal learning process is slower, ambidexterity is affected, and the emphasis is on product improvement rather than product creation (Bierly & Daly, 2007). Environmental factors include complexity, unpredictability, competition, rapid technological advancements, shifting customer tastes, and constant pressure to improve and provide new goods and services (Jansen et al., 2006; Kim & Rhee, 2009). Previous research is based on the Technology-Organization-Environment (TOE) framework through IT capability in explaining the antecedents of innovation ambidexterity and the moderating role of environmental dynamism (Soto-Acosta et al., 2018).

The level of complexity of the environment, its uncertainty, competitiveness, constant changes in technology, variations in consumer preferences, and pressure to develop and innovate products and services (Jansen et al., 2006; Kim & Rhee, 2009). It is an aspect that influences the selection of corporate routines, processes, and practices for survival in an increasingly competitive market associated with exploration and exploitation (González-Benito et al., 2014). Thus, it is an important aspect that influences environmental dynamism on organizational ambidexterity, as it is an essential factor in the relationship between exploration and exploitation.

Therefore, the dominance of various aspects of the environment ultimately shapes and directs the process of exploitation and exploration internally (Jansen et al., 2006). Environmental dynamism refers to the degree of unexpected changes in the organization's environment (Khan & Mir, 2019). Based on the preceding arguments, we contend: H5: There is a moderating effect of environmental dynamism between technological capacity and organizational ambidexterity Fig. 1 shows the model

developed based on research by Andrade et al.(2020) that technological capacity contributes to achieving organizational ambidexterity in environmental dynamism.

Likewise, previous studies suggested that dynamic capability affects organizational ambidexterity (Jansen, elaar, enBet 2009; eil& 2008; Sirmon et al., 2007; Teece, 2007). The reconfiguration activity is needed in the process of technology absorption and dynamic capability. It is part of the process of technological absorptive capacity in achieving organizational ambidexterity (González-Moreno et al., 2019; Valdez-Juárez & Castillo- Vergara, 2021). Figure 1. The conceptual and hypothesis model. 3.

Research Methodology The primary purpose of this study is to examine the role of technological capacity and dynamic capability on organizational ambidexterity and the moderating effect of environmental dynamism on the relationship between technological capacity and organizational ambidexterity. This study was designed using quantitative methods, and a survey-based instrument with a questionnaire was developed to test the hypotheses. Research questions using seven Likert scales were administered to the leaders of 107 commercial banks in Indonesia.

Seventy-six feasible feedbacks were analyzed using SMART- PLS software using the structural equation model method based on Partial Least Square (PLS). According to Hair Jr, Hult, et al. (2017), the "rule of thumb" minimum sample size is ten times the number of indicators of any endogenous variable in the PLS research model. However, this is a rough calculation PLS-SEM, like any other statistical method, asks the researcher to consider the sample size according to the background and data characteristics of the study (Hair Jr, Hult, et al., 2017).

Alternatively, sample size requirements are specifically derived using Power Analysis based on the model and considering the most significant number of predictors (Hair Jr, Hult, et al., 2017). Hair Jr, Hult, et.al (2017) cite two power tests, G*Power and Cohen (1992), as a reference for sample determination. This research follows the lead of Hair and Cohen, who notes that the maximum number of independent variables in the measurement and structural models is seven. It means that this study requires a minimum of 51 observations to achieve 80% statistical power to detect an R^2 value of at least 0.25 (with a 5% probability of error), provided that the measurement model has good outer loading quality (>0.7). 3.1.

Study variables and measurement Existing measurement models suited to the research context were utilized to evaluate the capabilities incorporated into our model. Respondents were asked to indicate the level of agreement for each measurement model statement on a 7- point Likert scale. All question items are measured on a Likert

scale of 1-7, ranging from "Strongly Disagree to "Strongly Agree." The constructs were developed after conducting an extensive literature review. To investigate the model, we used an existing measurement model that fits the context of our study.

The measuring instrument is built using construct indicators adopted from previous studies. To measure organization ambidexterity, we follow best practices in previous research using two dimensions, exploration and exploitation. Sixten indicators organization ambidexterity was developed with reference to question items (Gibson & Birkinshaw, 2004; Gupta et al., 2006; Jansen et al., 2006; Li, 2016; O'Rly & Tushman, 2013; S -Acosta et al., 2018; Úbeda- García et al., 2018; Wang & Rafiq, 2014). Questions were then drafted to be asked of commercial bank directors. Technological capacity has seven indicators that are adopted (Andrade et al., 2020; Kim & Rhee, 2009; Lember et al., 2018; Tsai & Hsieh, 2009).

These indicators include the company's capacity to utilize various technologies, develop products more effectively, develop systems more effectively, the process more effectively, knowledge capacity of new techniques, develop new technology solutions, and invest in new technology. The dynamic capability has seven indicators adopted from research by Hung et al. (2010) and Frank et al. (2017), which contain indicators including competitive flexibility, quickly identifying new business opportunities, entrepreneurial characteristics, combining employee knowledge and vision, evaluating the strengths and weaknesses, know the right direction and time to conduct R&D and employees balance work and family life. Environmental dynamism has six indicators.

The question items refer to previous research that is ndency to seek out new products, changes in customer demands and tastes, technological changes affect products/services, competitive competitor strategies and actions, instability of changes in the environment, and unpredictable actions of competitors (González-Benito et al., 2014; Heli Wang & Li, 2008; Jansen et al., 2006; Miller & Dröge, 1986; Mohammad, 2019; Simerly & Li, 2000; Soto-Acosta et al., 2018) We translated the research questions into Bahasa Indonesia and made adjustments without compromising the essence and originality of the questions. 3.2.

Measurement model In this section, the evaluation of the reflective measurement model evaluates the reliability (reliability of each indication and internal reliability discrepancy) and validity (reliability of each indicator and internal reliability inconsistency) (convergent and discriminant validity) (Hair, Jr. et al., 2017). Due to the fact that organizational ambidexterity has two opposing dimensions, its measurement is of "second order" as shown in Figure 2. Reflective scales are required to exhibit internal consistency as a requirement for validity, whereas validity must be established internally

(convergent validity) as well as externally (discriminant and predictive/criterion validity).

Formative scales are best characterized as indices rather than latent constructs becausetheris ng able" idefine constct (Hair et al., 2019, p. 731). The next step is to process the SMART PLS data using the PLS algorithm (300 maximum iterations, standardized values, and a centroid weighting scheme).The PLS Algorithm's results are shown in Table 1 and Figure 2. Loading factors greater than 0.4 reflect the indicator's dependability (Hair Jr, Sarstedt, et al., 2017). However, it is frequently discovered in social science research that loading factors are less than 0.7, necessitating additional care in deleting indicators smaller than 0.7

if they do not alter the composite reliability or content validity of a concept (Hair Jr, Hult, et al., 2017, p. 113). Loading factors between 0.4 and 0.7 are particularly important when deleting indicators due to their impact on composite reliability (or the extracted average variance); hence loading factors below 0.4 must be deleted (Hair Jr, Hult, et al., 2017, p. 113). As shown in Table 2, indications ED1, ED6, and XPR7 must be deleted since their loading factors are less than 0.4. On the environmental dynamism construct, the ED1 indicator refers to the question, "Our bank clients prefer to look for new goods."

The ED6 indicator, on the other hand, has to do with the question, "The actions of competitors are surprising." While the XPR7 indicator corresponds to the exploration construct question, "Does our bank leverage new distribution channels for promoting products or services?" (organizational ambidexterity). Figure 2. Measurement Model Table 1. Confirmatory factor analyses and scale reliability Constructs Measurements Loadings Alpha CR AVE Organizational Ambidexterity 0.954 0.959 0.612 Exploitation 0.938 0.949 0.700 XPL1 Our bank strives to improve its expertise in utilizing available technology to increase productivity (O'Reil Tushman, 2013; Wang & Rafiq, 2014) 0.830 XPL2 Our bank strives to improve competence in finding solutions to solve customer problems (Wang & Rafiq, 2014) 0.813 XPL3 Our bank seeks to enhance existing expertise in product development (Wang & Rafiq, 2014) 0.827 XPL4 Our bank strives to improve existing products/services (Jansen et al., 2006; Jansen, Tempelaar, van den Bosch, et al., 2009; Li, 2016; Úbeda-García et al., 2018) 0.826 XPL5 Our bank regularly employs necessary minor adaptations of existing products and services (Jansen et al., 2006; Jansen, Tempelaar, van den Bosch, et al., 2009; Li, 2016; Soto-Acosta et al., 2018) 0.893 XPL6 Our bank promotes product/service enhancements to existing customers (Jansen et al., 2006; Jansen, Tempelaar, van den Bosch, et al., 2009; Li, 2016; Soto-Acosta et al., 2018) 0.767 XPL7 Our bank increases efficiency in the product/service delivery process (Jansen et al., 2006; Jansen, Tempelaar, van den Bosch, et al., 2009; Li, 2016; Soto-Acosta et al., 2018; Úbeda-García et al., 2018; Wang & Rafiq, 2014) 0.761 XPL8 Our bank expanded services to existing customers (Jansen et al., 2006; Jansen, Tempelaar,

van den Bosch, et al., 2009; Li, 2016; Soto- Acosta et al., 2018; Úbeda-García et al., 2018) 0.715 Exploration 0.909 0.928 0.928 XPR1 Our bank has the capability to acquire new technologies (Gupta et al., 2006; O'Rly & Rafiq, 2014) 0.651 XPR2 Our bank has the ability to develop a mature management organization (e.g., forecasting technology and 0.719 customer trends; identifying emerging markets and technologies, marketing, and other functions; managing product development processes)(Gibson & Birkinshaw, 2004; Wang & Rafiq, 2014) XPR3 Our bank has the ability to create new products/services (Jansen et al., 2006; Li, 2016; Soto-Acosta et al., 2018; Wang & Rafiq, 2014) 0.730 XPR4 Our bank conducts experiments in creating new products/services (Jansen et al., 2006; Li, 2016; Soto- Acosta et al., 2018) 0.755 XPR5 Our bank commercializes each new product/service(Jansen et al., 2006; Li, 2016; Soto-Acosta et al., 2018; Úbeda-García et al., 2018) 0.747 XPR6 Our bank capitalizes on new opportunities (Jansen et al., 2006; Li, 2016; Soto-Acosta et al.,

2018; Úbeda-García et al., 2018) 0.835 XPR7 Our bank utilizes new distribution channels in marketing products/services (Jansen et al., 2006; Li, 2016; Soto-Acosta et al., 2018; Úbeda-García et al., 2018) Drop XPR8 Our bank regularly seeks out and approaches new customers (Jansen et al., 2006) 0.831 Dynamic Capability(DC) 0.922 0.938 0.686 DC1 Our bank has competitive flexibility in its industrial environment (e.g., developing new products and technologies, effective communication and coordination between departments) (Hung et al., 2010) 0.733 DC2 Our bank has the ability to quickly identify new business opportunities or 0.840 potential threats that come up (Hung et al., 2010) DC3 Our bank leaders have entrepreneurial characteristics (Hung et al., 2010) 0.789 DC4 Our bank has the ability to combine employee knowledge and vision (Hung et al., 2010) 0.860 DC5 Our bank has the ability to evaluate the strengths and weaknesses of the organization (Frank et al., 2017) 0.917 DC6 Our bank has the ability to know the right direction and time to conduct R&D (Frank et al., 2017) 0.889 DC7 Our bank helps employees balance work and family life (Frank et al., 2017) 0.751 Technological Capacity(TC) 0.902 0.922 0.628 TC1 Our bank has the capacity to utilize various technologies (Andrade et al., 2020; Kim & Rhee, 2009) 0.861 TC2 Our bank has the capacity to develop products more effectively than other companies (Andrade et al., 2020) 0.745 TC3 Our bank has the capacity to develop systems in a more effective way than other companies (Andrade et al., 2020) 0.793 TC4 Our bank has the capacity to process in a more effective way than other companies (Andrade et al., 2020) 0.807 TC5 Our bank has the knowledge capacity of new techniques (Andrade et al., 2020) 0.806 TC6 Our bank has the capacity to develop new technology solutions (Lember et al., 2018) 0.783 TC7 Our bank has new technology investment capabilities (Tsai & Hsieh, 2009) 0.745 Environmental Dynamism(ED) 0.938 0.956 0.845 ED1 Our bank customers tend to seek out new products (Jansen et al., 2006; Drop Mohammad, 2019; Soto-Acosta et al., 2018) ED2 Changes in customer demands and tastes (González-Benito et al.,

2014; Miller & Dröge, 1986; Mohammad, 2019; Simerly & Li, 2000) 0.883 ED3 Technological changes affect products/services (Miller & Dröge, 1986; Mohammad, 2019; Simerly & Li, 2000) 0.945 ED4 Competitive competitor strategies and actions (González-Benito et al., 2014; Miller & Dröge, 1986) 0.961 ED5 Instability of changes in the environment outside the company (Heli Wang & Li, 2008; Simerly & Li, 2000) 0.885 ED6 Unpredictable actions of competitors (Miller & Dröge, 1986) Drop Table 1 shows convergent validity, which describes the relationship and interrelationship between items or indicators. It can be seen that there is no Alpha and CR <0.7

and no factor loading <0.5. It shows that the relationship between items is very strong. Table 2. Discriminant Validity DC ED Moderating Effect ED- TCtoOA OA TC DC ED 0.610 Moderating Effect ED-TCtoOA 0.633 0.789 OA 0.909 0.604 0.644 TC 0.788 0.560 0.572 0.789 Table 2 shows discriminant validity, which describes the relationship between constructs. It may be seen that the Heterotrait Monotrait ratio (HTMT) is not greater than 0.85 or a maximum of 0.95. It also explains that the relationship between variables is also high. Table 3. Path Analysis Path Beta Standard Deviatio n T Statistic s P Value s Result H1:TC OA 0.232 0.095 2.432 0.015 Supported H2:TC ? DC 0.745 0.088 8.489 0.000 Supported H3:DC ? OA 0.610 0.106 5.728 0.000 Supported H4: TC ? DC ? OA 0.454 0.094 4.825 0.000 Supported H5: Moderating Effect ED-TCtoOA -0.033 0.083 0.394 0.694 Rejected Table 3 shows the path coefficient or direct relationship between variables.

The relationship between dynamic capability and technological capacity with organizational ambidexterity is accepted. Then the relationship between technological capacity and dynamic capability is also accepted. However, the direct relationship between environmental dynamism on organizational ambidexterity is not accepted, and the moderating effect of environmental dynamism on technological capacity on organizational ambidexterity is not accepted. So it can be concluded that H1, H2, H3, and H4 are accepted, while H5 is rejected. 4. Discussion The results show that the technological capacity of commercial banks in Indonesia affects organizational ambidexterity.

The bank's ability to use various technologies is the strongest indicator in measuring the technological capacity construct, the bank's effectiveness follows it in using technology, and the bank is very concerned about new techniques in the use of technology. Research (Mahmood & Mubarik, 2020) indicates that the technological capacity of SMEs influences the creation of company ambidexterity. Our findings suggested that businesses must continuously enhance their technological capacity to foster organizational ambidexterity, and dynamic capability mediates this relationship. .

In the following sections, we will discuss the implications of our findings for the performance of the banking industry, the function of dynamic capability as a mediator, and the role of environmental dynamism as a moderator. . The current literature on organizational ambidexterity focuses on the employees (Ansah et al., 2021; Cegarra-Navarro et al., 2021). This study is the first empirical analysis of technological capacity and identifies strategies for achieving organizational ambidexterity through dynamic capability, especially in the banking sector.

The results show how well technology affects Indonesian commercial banks' organizational ambidexterity. As the most significant indicator of technological capacity, bank ambidexterity refers to a bank's ability to utilize various technologies. The effectiveness of banks in their use of technology and their capacity to master new techniques in their use of technology serve as the subsequent indicators. The study also found that small and medium-sized enterprises should grasp digital technologies such as the internet of things (IoT), cloud computing, big data, and cyber-physical systems.

In line with the study on small and medium-sized businesses in Portugal, technological capacity greatly benefits organizational ambidexterity (Andrade et al., 2020). These findings are consistent with this theory. In the same way, research on small and medium-sized manufacturing firms in Spain shows that technological capability was positively related to firm ambidexterity (Soto-Acosta et al., 2018). Previous studies on small and medium enterprises yielded the same results when applied to large companies like banks. Trying to balance exploration and exploitation in the banking world is very complex.

The role of technology can add new parameters to realize ambidextrous commercial banks, especially in Indonesia. The analysis results show that, unlike in the banking industry, environmental change does not affect achieving organizational ambidexterity and has no moderating influence. Banking as a financial services sector ranks best in technological transformation (Brock & von Wangenheim, 2019). Fintech, blockchain, and super-apps are manifestations of the rapidity of this transformation.

Then, a study on Belgian firms with CEOs indicates that technological instability also affects the company's exploration and exploitation operations (Coreynen et al., 2020). The occurrence of unpredictable conditions and quick changes encourages businesses to be adaptable regarding their technological requirements to accommodate these changes. Still, the analysis shows that technological disruption does not affect the company's efforts to find and use natural resources. This fact shows that the banking industry's efforts to become a digital bank depend on how well it uses technology.

On the other hand, the banking industry's dynamic environment will stimulate efforts to balance exploration and exploitation activities. The study's findings indicate that the banking sector's dynamic capability helps organizational ambidexterity. This result aligns with the research conducted by (Božic & Dimovski, 2019; Farzaneh et al., 2022; Hung et al., 2010). In detail, a study about pharmaceutical firms in Iran demonstrates that ambidexterity responds to technological changes; hence, organizations require the dynamic capability to access and absorb technology (Farzaneh et al., 2022).

In other words, banks need dynamic capabilities to ensure they have the right ambidextrous technology. The results of this study reveal that the bank's dynamic capability increases due to personnel competency, new ideas, departmental collaboration, and the ability to identify business opportunities and risks. 5. Implication In this study, several contributions can be derived from the literature related to the antecedents of organizational ambidexterity, which includes technological capacity and dynamic capability in environmental dynamics.

Technological capacity can act as an exploration or exploitation activity. When banks invest in technology and its attributes, technological capacity acts as an exploration activity. In general, banks in Indonesia have established technology so that when they empower and optimize existing technology, technological capacity acts as an object of exploitation. Our findings show that technological capacity demands flexibility to respond quickly to environmental changes. At the same time, the ability to both exploit and explore resources is beneficial to banking ambidexterity.

A previous study has identified the technological capacity influencing organizational ambidexterity (Andrade et al., 2020). Even though, in general, the banking sector will continue to catch up with technological capacity, the requirement for dynamic capability as a mediator to apply to organizational ambidexterity will persist. Following prior research by Andrade et al. (2020) and Mikalef & Pateli (2017), we found that technological capacity has a considerable and positive effect on organizational ambidexterity and a significant and positive impact on dynamic capability.

Our research also confirmed that dynamic capability significantly and positively affected organizational ambidexterity. We derived the technological capacity using various technologies: product development capacity, system development capacity, process development capacity, new technical knowledge capacity, capacity to develop new technology solutions, and technology knowledge investment capability (Andrade et al., 2020). As shown in Table 1, we proposed construct-based indicators and hypothesized the links between technological capacity and these ideas.

According to recent studies, businesses that simultaneously employ exploration and exploitation tactics have a better chance of surviving (O'Reil . No earlier research has related technological capacity and dynamic capability with organizational ambidexterity, making this discovery particularly significant. When dynamic capabilities mediate between technological capacity and ambidexterity, technological capacity will exert a more substantial influence.

Furthermore, dynamic capability is an enabler in the process of learning, selecting, and using the right technology for the company. This study proves that environmental dynamism has no moderate link with technological capacity and organizational ambidexterity. In a less dynamic environment, businesses strategically position themselves with cost control (efficiency), and investment in technology decreases (Andrade et al., 2020). In a dynamic environment, companies tend to direct their efforts toward exploration activities (Benner & Tushman, 2003). Companies using an exploitative process approach instead of an exploratory one tend to be more stable (Andrade et al., 2020).

In this environment, the company's internal learning process is slower, impacts ambidexterity, and focuses on product enhancement instead of product creation (Bierly & Daly, 2007). When the environment is highly dynamic, product development and product cycles are short, new products emerge, and information flow is accelerated. Organizations should take bold, calculated steps to improve their competitive position. As a result, businesses have a more challenging time: (1) assimilating and predicting the environment, (2) identifying the impact of new technical advancements, and (3) converting this information into focused actions and decisions (Tajeddini & Mueller, 2018). If environmental conditions are highly volatile, it is feasible that banks' technological capacity will have a negative effect. The cornerstone for developing organizational ambidexterity will be preparedness and current technology.

In other words, if the bank improves its technological capacity in a highly dynamic environment, the security risk associated with that technology will also rise. The use of technology such as electronic payments is very effective in reducing cost efficiency and also proves effective in increasing cost efficiency. Hence, banks concentrate on shifting from traditional payments to virtual services (remote banking) and increasing the supply of electronic payment channels (Ardizzi et al., 2019).

Fintech's emergence compels traditional financial centers and current financial institutions to reconsider their tactics to maintain a foothold in the era of financial digitization (Hendrikse et al., 2020). Technological capacity in SMEs and banks both contribute to organizational ambidexterity. The financial sector, such as fintech and

neo-bank, relies heavily on technological capacity. Because the development of fintech is a financial service revolution and opportunity, it is a risk for the banking sector (Murinde et al., 2022).

Decision makers should be concerned with strategic exploration to decide on policies for adaptation, adoption of specific technologies, or acquisition, as well as collaboration with fintech and neo-banks. Decision-makers review the company's dynamic capabilities concerning acquisition, adaptation, and collaboration policies to determine the right strategies and policies. As a regulator of policies and regulations, the government provides clear rules in the implementation of business activities of commercial banks, fintech, and the like to ensure business continuity can compete healthily in the dynamism of the environment that occurs. 6. Conclusion Organizational ambidexterity is the key to organizational effectiveness and long-term business viability. Determining the foundations and elements that impact and contribute to organizational ambidexterity is crucial.

In conclusion, technological capacity influences organizational ambidexterity. The increasingly fast technological advances that enable the formation of new business models in the financial services industry, a sign of environmental dynamism, make the technological capacity of banks a crucial factor. Banks must evaluate the technological capacity of the organization, which includes (1) the ability to utilize several technologies, (2) bank effectiveness in using technology, and (3) the capacity to learn new technology techniques.

However, the role of environmental dynamism as a moderator has not shown a relationship between technological capacity and organizational ambidexterity. Technological capacity is one of the main antecedents in efforts to achieve the organizational ambidexterity of commercial banks in Indonesia. The company's dynamic capabilities envisage that technology will play a more significant role. In addition, technological capacity will be optimal when human resources can synergize. Future studies may also investigate the relationship between human resources and technology and the level of financial fraud.

Limitations and future research There are also some limitations to this paper. First, the sample was collected in a single country, limiting the ability to generalize the findings to other nations. However, the created framework of indicators must allow for the study replication in diverse circumstances. Importantly, our findings also give significant insights for managers in companies that rely substantially on innovation activities and the value of knowledge assets. Second, future research should consider other environmental characteristics (e.g., complexity).

Considering the quality of the questionnaire in order to avoid an overly lengthy questionnaire, such additional characteristics were not taken into account in this study. Other suggestions for future research may also be considered. For example, the relationship between CEO experience and technological capacity is attributed to its influence on exploration or exploitation or the moderating effect of environmental characteristics on organizational ambidexterity in other sectors. Declaration of Competing Interest The authors state that they have no known competing financial interests or personal ties that could be perceived as having influenced the work described in this study. References Ahmad, N., Othman, S. N.,

& Mad Lazim, H. (2014). A review of technological capability and performance relationship in manufacturing companies. ISTMET 2014 - 1st International Symposium on Technology Management and Emerging Technologies, Proceedings, Istmet, 193 – 198. https://doi.org/10.1109/ISTMET.2014.6936505 Alamsjah, F. (2022). Ambidextrous leadership of publicly listed companies during turbulent times: The importance of agility and alliance capability. Global Business & Finance Review, 3(June), 41 – 55. Andrade, J., Franco, M., & Mendes, L. (2020). Technological capacity and organisational ambidexterity: the moderating role of environmental dynamism on Portuguese technological SMEs. Review of Managerial Science, 0123456789. https://doi.org/10.1007/s11846-020-00416-x Ansah, M. O., Addai-Boamah, N.,

Bamfo, A. B., & Ry-Kottoh, L. A. (2021). Organizational ambidexterity and financial performance in the banking industry: evidence from a developing economy. Journal of Financial Services Marketing. https://doi.org/10.1057/s41264-021- 00117-w Ardizzi, G., Crudu, F., & Petraglia, C. (2019). Innovation and Cost Efficiency in the Banking Industry: The Role of Electronic Payments. Economic Notes, 48(1), 1 – 26. https://doi.org/10.1111/ecno.12121 Benner, M. J., & Tushman, M. L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. Academy of Management Review, 28(2), 238 – 256. https://doi.org/10.5465/AMR.2003.9416096 Bierly, P. E., & Daly, P. S. (2007).

Alternative Knowledge Strategies, Competitive Environment, and Organizational Performance in Small Manufacturing Firms. Entrepreneurship: Theory and Practice, 540, 493 – 517. Binci, D., Belisari, S., & Appolloni, A. (2020). BPM and change management: An ambidextrous perspective. Business Process Management Journal, 26(1), 1 – 23. https://doi.org/10.1108/BPMJ-06- 2018-0158 Birkinshaw, J., Zimmermann, A., & Riasch, S. (2016). How Do Firms Adapt to Discontinuous Change? California Management Review, 58(4), 36 – 58. B K., & Dimovski, V. (2019). Business intelligence and analytics use, innovation ambidexterity, and firm performance: A dynamic capabilities perspective.

Journal of Strategic Information Systems, October. https://doi.org/10.1016/j.jsis.2019.101578 Brock, J. K. U., & von Wangenheim, F. (2019). Demystifying AI: What digital transformation leaders can teach you about realistic artificial intelligence. California Management Review, 61(4), 110 – 134. https://doi.org/10.1177/1536504219865226 Callegari, B., & Rai, R. S. (2021). Blending in: A case study of transitional ambidexterity in the financial sector. Sustainability (Switzerland), 13(4), 1 – 18. https://doi.org/10.3390/su13041690 Campanella, F., Del Giudice, M., Thrassou, A., & Vrontis, D. (2016). Ambidextrous organizations in the banking sector: an empirical verificatianks' peformancceptualent.

International Journal of Human Resource Management, 31(2), 272 – 302. https://doi.org/10.1080/09585192.2016.1239122 Cegarra-Navarro, J. G., Jimenez-Jimenez, D., & Garcia-Perez, A. (2021). An integrative view of knowledge processes and a learning culture for ambidexterity: Toward improved organizational performance in the banking sector. IEEE Transactions on Engineering Management, 68(2), 408 – 417. https://doi.org/10.1109/TEM.2019.2917430 Cohen, J. (1992). A Power Primer. Psychological Bulletin [PsycARTICLES], 112(July), 155 – 159. http://www2.psych.ubc.ca/~schaller/528Readings/Cohen1992.pdf Cohen, W. M., & Levinthal, D. A. (1990).

Absorptive capacity: A new perspective on learning and innovation. Administrative Science Quarterly, 35(1), 128. https://doi.org/10.2307/2393553 Coreynen, W., Matthyssens, P., Vanderstraeten, J., & van Witteloostuijn, A. (2020). Unravelling the internal and external drivers of digital servitization: A dynamic capabilities and contingency perspective on firm strategy. Industrial Marketing Management, 89(February), 265 – 277. https://doi.org/10.1016/j.indmarman.2020.02.014 Dai, Y., Du, K., Byun, G., & Zhu, X. (2017). Ambidexterity in new ventures: The impact of new product development alliances and transactive memory systems. Journal of Business Research, 75, 77 – 85. https://doi.org/10.1016/j.jbusres.2017.02.009 Del Gaudio, B. L., Porzio, C., Sampagnaro, G., & Verdoliva, V. (2021). How do mobile, internet and ICT diffusion affect the banking industry? An empirical analysis. European Management Journal, 39(3), 327 – 332. https://doi.org/10.1016/j.emj.2020.07.003 Doerr, S., Erdem, M., Franco, G., Gambacorta, L., & Illes, A. (2021). Technologiapay avery C -19. Economics Letters, 209, 110102. https://doi.org/10.1016/j.econlet.2021.110102 Elkomy, S., Ingham, H., & Read, R. (2021).

The Impact of Foreign Technology and Embodied R&D on Productivity in Internationally Oriented and High-Technology Industries in Egypt, 2006 – 2009. Journal of Industry, Competition and Trade, 21(2), 171 – 192. https://doi.org/10.1007/s10842-020-00349-x

Farzaneh, M., Wilden, R., Afshari, L., & Mehralian, G. (2022). Dynamic capabilities and innovation ambidexterity: The roles of intellectual capital and innovation orientation. Journal of Business Research, 148(April 2021), 47 – 59. https://doi.org/10.1016/j.jbusres.2022.04.030 Feng, B., Sun, K., Chen, M., & Gao, T. (2020). The impact of core technological capabilities of high-tech industry on sustainable competitive advantage. Sustainability (Switzerland), 12(7). https://doi.org/10.3390/su12072980 Ferreras-Méndez, J. L.,

Llopis, O., & Alegre, J. (2022). Speeding up new product development through entrepreneurial orientation in SMEs: The moderating role of ambidexterity. Industrial Marketing Management, 102(January), 240 – 251. https://doi.org/10.1016/j.indmarman.2022.01.015 Frank, H., Güttel, W., & Kessler, A. (2017). Environmental dynamism, hostility, and dynamic capabilities in medium-sized enterprises. International Journal of Entrepreneurship and Innovation, 18(3), 185 – 194. https://doi.org/10.1177/1465750317723219 Gallego-Gomez, C., & De-Pablos-Heredero, C. (2020). Artificial intelligence as an enabling tool for the development of dynamic capabilities in the banking industry. International Journal of Enterprise Information Systems, 16(3), 20 – 33. https://doi.org/10.4018/IJEIS.2020070102 Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. Academy of Management Journal, 47(2), 209 – 226. González-Benito, Ó., González-Benito, J., & Muñoz-Gallego, P. A. (2014).

On the Consequences of Market Orientation across Varied Environmental Dynamism and Competitive Intensity Levels. Journal of Small Business Management, 52(1), 1 21. https://doi.org/10.1111/jsbm.12028 González-Moreno, Á., Triguero, Á., & Sáez-Martínez, F. J. (2019). Many or trusted partners for eco-innovation? The influence of breadth and depth Technological Forecasting and Social Change, 147(June), 51 62. https://doi.org/10.1016/j.techfore.2019.06.011 Goyal, J., Singh, M., Singh, R., & Aggarwal, A. (2018). Efficiency and technology gaps in Indian banking sector: Application of meta-frontier directional distance function DEA approach. Journal of Finance and Data Science, 5(3), 156 172. https://doi.org/10.1016/j.jfds.2018.08.002 Gupta, A. K., Smith, K. E. N. G., & Shalley, C. E. (2006). The Interplay between Exploration and Exploitation. Academy of Management Journal, 49(4), 693 706. Hair, Jr., J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017).

A Primer on Partial Least Squares Structural Equation Modeling (PLS- SEM), Second Edition. In SAGE Publications, Inc. (Second Edi). SAGE Publications, Inc. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., Black, W. C., & Anderson, R. E. (2019). Multivariate Data Analysis (EIGHTH EDI). Cengage Learning. https://doi.org/10.1002/9781119409137.ch4 Hair Jr, J. F., Hult, G. T. M. T. M., Ringle, C.

M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS- SEM), Second Edition. In SAGE Publications, Inc. (Second Edi). SAGE Publications, Inc. Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017).

Advanced issues in partial least squares structural equation modeling. Sage Publications, Inc. Heli Wang, & Li, J. (2008). Untangling the effects of overexploration and overexploitation on organizational performance: The moderating role of environmental dynamism. Journal of Management, 34(5), 925 951. https://doi.org/10.1177/0149206308321547 Hendrikse, R., van Meeteren, M., & Bassens, D. (2020). Strategic coupling between finance, technology and the state: Cultivating a Fintech ecosystem for incumbent finance. Environment and Planning A, 52(8), 1516 1538. https://doi.org/10.1177/0308518X19887967 Hung, R. Y. Y., Yang, B.,

Lien, B. Y. H., McLean, G. N., & Kuo, Y. M. (2010). Dynamic capability: Impact of process alignment and organizational learning culture on performance. Journal of World Business, 45(3), 285 – 294. https://doi.org/10.1016/j.jwb.2009.09.003 Jansen, J. J. P., George, G., Van Den Bosch, F. A. J., & Volberda, H. W. (2008). Senior team attributes and organizational ambidexterity: The moderating role of transformational leadership. Journal of Management Studies, 45(5), 982 – 1007. https://doi.org/10.1111/j.1467-6486.2008.00775.x Jansen, J. J. P., Tempelaar, M. P., den Bosch, F. A. J., & Volberda, H. W. (2009). Structural differentiation and ambidexterity: The mediating role of integration mechanisms. Organization Science, 20(4), 797 – 811. Jansen, J. J. P.,

Tempelaar, M. P., van den Bosch, F. A. J., & Volberda, H. W. (2009). Structural differentiation and ambidexterity: The mediating role of integration mechanisms. Organization Science, 20(4), 797 – 811. https://doi.org/10.1287/orsc.1080.0415 Jansen, J. J. P., Van Den Bosch, F. A. ., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: effects of organizational antecedents and environmental moderators. Management Science, July 2006. https://doi.org/10.5962/bhl.title.67734 Jantunen, A., Tarkiainen, A., Chari, S., & Oghazi, P. (2018). Dynamic capabilities, operational changes, and performance outcomes in the media industry. Journal of Business Research, 89, 251 – 257. Kafetzopoulos, D. (2020).

Organizational ambidexterity: antecedents, performance and environmental uncertainty. Business Process Management Journal. https://doi.org/10.1108/BPMJ-06-2020-0300 Kahle, J. H., Marcon, É., Ghezzi, A., & Frank, A. G. (2020). Smart Products value creation in SMEs innovation ecosystems. Technological Forecasting and Social Change, 156(November 2019), 120024. https://doi.org/10.1016/j.techfore.2020.120024 Kaplan, D. (2012). South African mining equipment and specialist services: Technological capacity, export performance and policy. Resources Policy, 37(4), 425 – 433.

https://doi.org/10.1016/j.resourpol.2012.06.001 Khan, S. J., & Mir, A. A. (2019).

Ambidextrous culture, contextual ambidexterity and new product innovations: The role of organizational slack and environmental factors. Business Strategy and the Environment, 28(4), 652 – 663. https://doi.org/10.1002/bse.2287 Khue Ngo, N. D., Le, T. Q., Tansuchat, R., Nguyen-Mau, T., & Huynh, V. N. (2022). Evaluating Innovation Capability in Banking Under Uncertainty. IEEE Transactions on Engineering Management, 1 – 18. https://doi.org/10.1109/TEM.2021.3135556 Kim, T., & Rhee, M. (2009). Exploration and exploitation: Internal variety and environmental dynamism. Strategic Organization, 7(1), 11 – 41. https://doi.org/10.1177/1476127008100125 Lee, C. C., Li, X., Yu, C. H., & Zhao, J. (2021).

Does fintech innovation imficiency Evidence fna's ndust International Review of Economics and Finance, 74(March), 468 – 483. https://doi.org/10.1016/j.iref.2021.03.009 Lember, V., Kattel, R., & Tõnurist, P. (2018). Technological capacity in the public sector: the case of Estonia. International Review of Administrative Sciences, 84(2), 214 – 230. https://doi.org/10.1177/0020852317735164 Li, C. R. (2016). The role of top-team diversity and perspective taking in mastering organizational ambidexterity. Management and Organization Review, 12(4), 769 – 794. https://doi.org/10.1017/mor.2015.54 Mahmood, T., & Mubarik, M. S. (2020).

Balancing innovation and exploitation in the fourth industrial revolution: Role of intellectual capital and technology absorptive capacity. Technological Forecasting and Social Change, 160(August), 120248. https://doi.org/10.1016/j.techfore.2020.120248 Menchini, F., Russo, P. T., Slavov, T. N. B., & Souza, R. P. (2022). Strategic capabilities for business model digitalization. Revista de Gestao, 29(1), 2 – 16. https://doi.org/10.1108/REGE-10-2020-0086 Mikalef, P., & Pateli, A. (2017). Information technology-enabled dynamic capabilities and their indirect effect on competitive performance: Findings from PLS-SEM and fsQCA. Journal of Business Research, 70, 1 – 16. https://doi.org/10.1016/j.jbusres.2016.09.004 Miller, D., & Dröge, C.

(1986). Psychological and traditional determinants of structure. Administrative Science Quarterly, 31(4), 539 – 560. https://doi.org/10.2307/2392963 Mohammad, H. I. (2019). Mediating effect of organizational learning and moderating role of environmental dynamism on the relationship between strategic change and firm performance. Journal of Strategy and Management, 12(2), 275 – 297. https://doi.org/10.1108/JSMA-07-2018-0064 Mohammed Abazeed, R. A. (2020). Impact of strategic capabilities on organizational ambidexterity in the commercial banks in Jordan: The mediating role of knowledge management. Management Science Letters, 10(7), 1445 – 1456. https://doi.org/10.5267/j.msl.2019.12.023 Monferrer Tirado, D., Moliner Tena, M. Á., &

Estrada Guillén, M. (2019). Ambidexterity as a KFactor in B' Perforketi Approach. Journal of Marketing Theory and Practice, 27(2), 227 – 250. https://doi.org/10.1080/10696679.2019.1577685 Moon, C. W. (1998).

Technological capacity as a determinant of governance form in international strategic combinations. Journal of High Technology Management Research, 9(1), 35 – 53. https://doi.org/10.1016/1047-8310(88)90004-1 Murinde, V., Rizopoulos, E., & Zachariadis, M. (2022). The impact of the FinTech revolution on the future of banking: Opportunities and risks. International Review of Financial Analysis, 81(June 2021), 102103. https://doi.org/10.1016/j.irfa.2022.102103 Nevado-Peña, D., López-Ruiz, V. R., & Alfaro-Navarro, J. L. (2019). Improving quality of life perception with ICT use and technological capacity in Europe. Technological Forecasting and Social Change, 148(August), 119734. https://doi.org/10.1016/j.techfore.2019.119734 O'Rly, Cdexteritami capabily: Rng the innovator's di Research in Organizational Behavior, 28, 185 – 206. https://doi.org/10.1016/j.riob.2008.06.002 O'Rly, Caonal ambidexterity: Past, present, and future.

Academy of Management Perspectives, 27(4), 324 – 338. https://doi.org/10.5465/amp.2013.0025 O'Rly, Can, M. L., O'Rly III, C. hman, M. L. (2013). Organizational ambidexterity: Past, present, and future. Academy of Management Perspectives, 27(4), 324 – 338. https://doi.org/10.5465/amp.2013.0025 Ochie, C., Nyuur, R. B., Ludwig, G., & Cunningham, J. A. (2022). Dynamic capabilities and organizational ambidexterity:New strategies from emerging market multinationalenterprises in Nigeria. Thunderbird Int. Bus. Rev., 64(5), 365 – 576. Parrilli, M. D., Balavac, M., & Radicic, D. (2020).

Business innovation modes and their impact on innovation outputs: Regional variations and the nature of innovation across EU regions. Research Policy, 49(8), 104047. https://doi.org/10.1016/j.respol.2020.104047 Patrício, V., Lopes da Costa, R., Pereira, L., & António, N. (2021). Project management in the development of dynamic capabilities for an open innovation era. Journal of Open Innovation: Technology, Market, and Complexity, 7(3). https://doi.org/10.3390/joitmc7030164 Qu, X., Khan, A., Yahya, S., Zafar, A. U., & Shahzad, M. (2022). Green core competencies to prompt green absorptive capacity and bolster green innovation:deratirganizion's green culte. Journal of Environmental Planning and Management, 65(3), 536 – 561. https://doi.org/10.1080/09640568.2021.1891029 Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. Journal of Management, 34(3), 375 – 409. https://doi.org/10.1177/0149206308316058 Reggiani, C., & Shevtsova, Y. (2018).

Trade and Productivity in a Transition Economy: the Role of Industry and Export Destination. Journal of Industry, Competition and Trade, 18(3), 395 – 428. https://doi.org/10.1007/s10842-018-0271-x Revilla, E., Prieto, I. M., & Prado, B. R. (2010). Knowledge strategy: Its relationship to environmental dynamism and complexity in product development. Knowledge and Process Management, 17(1), 36 – 47. https://doi.org/10.1002/kpm.339 Rothaermel, F. T., & Deeds, D. L. (2004). Exploration and exploitation alliances in biotechnology: A system of new product development. Strategic Management Journal, 25(3), 201 – 221. https://doi.org/10.1002/smj.376 Schilke, O. (2014).

On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. Strategic Management Journal, 35(2), 179 – 203. https://doi.org/10.1002/smj.2099 Simerly, R. L., & Li, M. (2000). Environmental dynamism, capital structure and performance: A theoretical integration and an empirical test. Strategic Management Journal, 21(1), 31 – 49. https://doi.org/10.1002/(SICI)1097-0266(200001)21:1<31::AID- SMJ76>3.0.CO;2-T Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing firm resources in dynamic environments to create value: Looking inside the black box. Academy of Management Review, 32(1), 273 – 292. https://doi.org/10.5465/AMR.2007.23466005 Soto-Acosta, P., Popa, S.,

& Martinez-Conesa, I. (2018). Information technology, knowledge management and environmental dynamism as drivers of innovation ambidexterity: a study in SMEs. Journal of Knowledge Management, 22(4), 824 849. https://doi.org/10.1108/JKM-10-2017-0448 Sutopo, W., Astuti, R. W., & Suryandari, R. T. (2019). Accelerating a technology commercialization; with a discussion on the relation between technology transfer efficiency and open innovation. Journal of Open Innovation: Technology, Market, and Complexity, 5(4). https://doi.org/10.3390/joitmc5040095 Suzuki, O. (2019). Uncovering moderators of organisational ambidexterity: evidence from the pharmaceutical industry.

Industry and Innovation, 26(4), 391 – 418. https://doi.org/10.1080/13662716.2018.1431525 Tajeddini, K., Martin, E., & Ali, A. (2020). Enhancing hospitality business performance: The role of entrepreneurial orientation and networking ties in a dynamic environment. International Journal of Hospitality Management, 90(May), 102605. https://doi.org/10.1016/j.ijhm.2020.102605 Tajeddini, K., & Mueller, S. (2018). Moderating Effect of Environmental Dynami the RelationsFirm's eurial Orientation and Financial Performance. Entrepreneurship Research Journal, 1 – 13. https://doi.org/10.1515/erj-2018-0283 Tarba, S. Y., Jansen, J. J. P., Mom, T.

J. M., Raisch, S., & Lawton, T. C. (2020). A microfoundational perspective of organizational ambidexterity: Critical review and research directions. Long Range Planning, 53(6), 102048. https://doi.org/10.1016/j.lrp.2020.102048 Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfondations of(sustainabble) enterprise performance. Strategic Management Journal, 28(June), 1319 – 1350. https://doi.org/10.1002/smj.640 Tsai, K. H., & Hsieh, M. H. (2009). How different types of partners influence innovative product sales: Does technological capacity matter? Journal of Business Research, 62(12), 1321 – 1328. https://doi.org/10.1016/j.jbusres.2009.01.003 Úbeda-García, M., Claver-Cortés, E.,

Marco-Lajara, B., García-Lillo, F., & Zaragoza-Sáez, P. C. (2018). Continuous innovation in the hotel industry: The development of organizational ambidexterity through human capital and organizational culture in Spanish hotels. International Journal of Contemporary Hospitality Management, 30(12), 3609 – 3631. https://doi.org/10.1108/IJCHM-06-2017-0326 Úbeda-García, M., Marco-Lajara, B., Zaragoza-Sáez, P. C., Manresa- Marhuenda, E., & Poveda-Pareja, E. (2022). Green ambidexterity and environmental performance: The role of green human resources. Corporate Social Responsibility and Environmental Management, 29(1), 32 – 45. https://doi.org/10.1002/csr.2171 Valdez-Juárez, L. E., & Castillo-Vergara, M. (2021).

Technological capabilities, open innovation, and eco-innovation: Dynamic capabilities to increase corporate performance of SMEs. Journal of Open Innovation: Technology, Market, and Complexity, 7(1), 1 – 19. https://doi.org/10.3390/joitmc7010008 van Lieshout, J., van der Velden, J. ., Blomme, R. ., & Peters, P. (2021). The interrelatedness of organizational ambidexterity, dynamic capabilities and open innovation: a conceptual model towards a competitive advantage. European Journal of Management Studies, 26(2/3), 39 – 62. https://doi.org/10.1108/ejms-01-2021-0007 Vogel, R., & Güttel, W. H. (2013). The dynamic capability view in strategic management: A bibliometric review.

International Journal of Management Reviews, 15(4), 426 446. https://doi.org/10.1111/ijmr.12000 Walker, T., & Morris, L. (2021). The Handbook of Banking Technology. In The Handbook of Banking Technology. https://doi.org/10.1002/9781119328094 Wamba, S. F., Dubey, R., Gunasekaran, A., & Akter, S. (2020). The performance effects of big data analytics and supply chain ambidexterity: The moderating effect of environmental dynamism. International Journal of Production Economics, 222. https://doi.org/10.1016/j.ijpe.2019.09.019 Wang, C. L., & Rafiq, M. (2014). Ambidextrous organizational culture, contextual ambidexterity and new product innovation: A comparative study of UK and Chinese high-tech firms. British Journal of Management, 25(1), 58 76. https://doi.org/10.1111/j.1467- 8551.2012.00832.x Wu, J., Wood, G., Chen, X., Meyer, M., & Liu, Z. (2020). Strategic ambidexterity and

innovation in Chinese multinational vs. indigenous firms: The role of managerial capability. International Business Review, 29(6), 101652. https://doi.org/10.1016/j.ibusrev.2019.101652 Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. Journal of Management Studies, 43(4), 917 955. https://doi.org/10.1111/j.1467-6486.2006.00616.x

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