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Regular Article

Contingency perspective to bridge human capital perception to achieve ambidexterity in environmental dynamism

Tyna Yunita [a,b,*], Sasmoko Sasmoko [c], Agustinus Bandur [a], Firdaus Alamsjah [d]

[a] Management Department, BINUS Business School, Doctor of Research in Management, Bina Nusantara University, Jakarta, 11480, Indonesia
[b] Faculty of Economics and Business, Universitas Bhayangkara Jakarta Raya, Jakarta, Indonesia
[c] Management Department, BINUS Business School, Doctor of Research in Management & Primary Teacher Education Department, Faculty of Humanities, Bina Nusantara University, Jakarta 11480, Indonesia
[d] Industrial Engineering Department, BINUS Graduate Program—Master of Industrial Engineering, Bina Nusantara University, Jakarta 11480, Indonesia

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ABSTRACT

Environmental change and technological disruption are expanding phenomena impacting today's economic world. A dynamic business environment can inspire companies to engage in both exploitative and exploratory innovation at the same time. Traditional financial technologies have evolved substantially over the past decade. Although the environment challenges technology to adapt to business sustainability, artificial intelligence has not replaced human bankers. There is, however, a scarcity of research on the relationship between ambidextrous work and human capital, indicating that few studies have been undertaken. To better understand how banks can achieve such organizational ambidexterity, we develop a framework that investigates the combined effects of organizational human capital (O-HC), environmental dynamism (END), and technological capacity (TEC) on organizational ambidexterity (ORA). The theory of contingency is the theoretical foundation of the subject. This quantitative analysis used a sample size of sixty-three executives from Indonesia's banking industry and was analyzed using PLS-SEM and SPSS to determine the measurement and structural models. The results show that TEC and O-HC directly affected ORA, but END did not. We also found that firms with O-HC are more likely to utilize high TEC to promote ORA. The findings of this study provide practitioners with insight into how they can promote human capital and TEC as pillars of ambidextrous banking. This research contributes to the literature on ORA and offers managers insights on aligning their knowledge practices to develop TEC when pursuing ORA.

1. Introduction

Non-banking businesses pose a significant threat to the current financial industry. Given how ubiquitous mobile banking has become and mobile payment solutions among smartphone and internet users, FinTech has emerged (Wewege et al., 2020), slowly eroding the banking business's portion (Brand Finance, 2020). Indonesian banks struggled with low interest rates in 2019; thus, businesses turned to bonds and FinTech startups for financing. After ten years, the future of traditional banks is still a significant issue for academics studying the impact of financial technologies (Meyer et al., 2023; Parameshwar et al., 2019). The year 2019 is the pinnacle of banking challenges, as banks are required to respond to environmental dynamism and technological obstacles. The entire sector, including conventional banks, is coping with the COVID-19 pandemic, which has resulted in socially isolating policies and increased high-risk loans, which are detrimental to economic success and stability (Elnahass et al., 2021). The industry received a stimulus policy and restructured credit for COVID-19 debtors, reducing debtor bankruptcy and maintaining the banking system's stability (OJK, 2020a). On the other side, shifting public expectations for financial services have altered people's physical-to-virtual commerce and payment settlement behaviors, requiring Banks to reevaluate their competitive edge in light of technological and competitive developments (Jakšič & Marinč, 2019).

For the bank to remain competitive, it must engage in exploration and exploitation, a trait known as ambidexterity. The phenomenon of ambidexterity in the financial industry has been extensively identified and studied, such as big data (Aziz & Long, 2023), human capital (Ali

* Corresponding author.
E-mail addresses: tyna.yunita@dsn.ubharajaya.ac.id (T. Yunita), sasmoko@binus.edu (S. Sasmoko), abandur@binus.edu (A. Bandur), alamsjah@binus.edu (F. Alamsjah).

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et al., 2022; Hadji et al., 2022), organizational design (Marabelli et al., 2012), macroeconomics (Haldane, 2014). In Indonesia, banks have made exploratory efforts such as open banking, collaboration with Fintech, innovation for the convenience and simplicity of consumer transactions, and expansion of international networks. Furthermore, Indonesian banks have tried to exploit this by implementing efficiency, selective lending, caution in strategic strategies, and increased control. On the other hand, Indonesian banks continue to lag behind their ASEAN and Asia-Pacific counterparts (Effendi et al., 2018; Yang et al., 2019).

The devastating consequences of COVID-19 underscore the need for organizations to embrace the new Industry 4.0 approach (Mahmood and Mubarik, 2020) to advance the digitalization of businesses (PwC Retail Banking, 2020, 2020; Soto-Acosta, 2020) and the requirement for new ideas (Alamsjah, 2022). Banks must rely on their technological capacities as the most technologically advanced financial sector (Brock & von Wangenheim, 2019). Organizations with higher technological prowess can develop inventive products, services, and procedures (Andrade et al., 2020). Specifically, banks must ensure their retail networks can compete in an increasingly competitive landscape (Jansen et al., 2012; Mitropoulos & Mitropoulos, 2020).

Digital technology alone is insufficient for making strategic decisions; technical talents are also required to accelerate banking digital transformation (Hensellek, 2020). As technology permeates every aspect of business operations, digitally savvy human resources are crucial in modern business environments. Conversely, human bankers with consumer-friendly services are considered traditional banking's strong suit (Brand Finance, 2020).

This study examines some of these variables pertaining specifically to Indonesia's financial industry to determine Smart-PLS's predictive power in formulating forecasts from the perspective of banking executives. This study examines the effects of environmental dynamism (END), human capital (O-HC) technological capacity (TEC) to achieve organizational ambidexterity (ORA) pertaining specifically to Indonesia's financial industry to determine Smart-PLS's predictive power in formulating forecasts from the perspective of banking executives. We hope to contribute some fresh ideas to this area. To begin with, this expands the existing literature on multitasking in the financial sector by elucidating the relationship between environmental dynamism (END) and human capital (O-HC) to achieve organizational ambidexterity (ORA). Furthermore, we strengthen this finding by incorporating the technological capacity (TEC) variable. Second, the research has the potential to shed light on whether or not technology acts as a mediator in the connection involving O-HC and ORA. Third, we investigate the opposite of the contingencies theory, in which environmental dynamism is a precursor to organizational ambidexterity.

2. Literature review

2.1. Theoretical foundations

The theory of contingency underpins this investigation. Contingency theory, a behavioral theory in management studies, asserts that there is no ideal way to operate a firm or organization or make choices, implying that management should be approached contextually (Anwar, 2015; Cunliffe, 2008; Yang & Jiang, 2023). A company can, in theory, be "ambidextrous" and explore and exploit in response to external environmental alterations by separating its workers into specialized departments (Asiaei et al., 2023; Zimmermann et al., 2018). Although research suggests ambidexterity is more desirable in fast-paced settings (Wang & Li, 2008). Others contend that environmental dynamism cannot accurately predict future changes in technology, revenue, or firm investment (Schilke, 2014).

By understanding the factors that influence ambidexterity in banking, it is possible to devise strategies to enhance human capital through technological capacity. Using contingency theory, researchers can manage environmental dynamism, human capital, and technological capacity to increase ambidexterity. Consequently, this theory provides a lens for looking deeper into the banking manager's perspective, supporting the researcher in recognizing the actual problem and, ultimately, assisting the researcher in addressing the research questions.

2.2. Environmental dynamism (END)

END refers to the magnitude of change in a company's surroundings, such as technology, consumer demand, industry competition intensity, and the degree to which the business environment is turbulent and unstable (Goll & Rasheed, 2004; Saeed et al., 2023). In addition to being proactive in detecting environmental signals, a company must also seize opportunities quickly (Khan & Mir, 2019). High technological uncertainty necessitates that businesses be able to predict, interpret constraints, and comprehend company resources. When confronted with technological uncertainty, businesses prefer to explore and innovate in the company development process, enhancing their technological innovation performance (Zhai et al., 2018). In complex and ever-changing environments, high-performing businesses are more likely to encounter ambiguity and have a greater need for information processing than their less sophisticated competitors (Syed et al., 2020). Jennings and Lumpkin (1992) state that for businesses to be successful, they must perpetually observe their environment and adapt accordingly. However, environmental observations alone will not result in improved performance, contrary to the effective use of such data in strategy formulation (Khan & Mir, 2019). Companies are under pressure to reorganize their business processes due to adjusting to environmental changes, rapid dissemination of information to relevant individuals within the organization, and rapid decision-making. The need to reintegrate within the organization hinders the company's ability to conduct research and exploitation without interruption (Khan & Mir, 2019).

A study of END in banks shows its relationship with strategy (Keramati et al., 2009, 2012; Mohammad, 2019), technology (Keramati et al., 2009, 2012), and ambidexterity (Jansen et al., 2006). While other industries show END and ambidexterity linked to technology (Soto-Acosta et al., 2018) and performance (Mammassis & Kostopoulos, 2019; Soto-Acosta et al., 2018). However, opportunities to strengthen market position have arisen due to the current economic crisis, increased END, and competitive intensity (González-Benito et al., 2014). In highly dynamic environments, the adverse effects of overexploitation on organizational performance are greater than those of overexploitation (Wang & Li, 2008).

In general, empirical studies have shown that the effectiveness of a firm's capabilities, such as human capital, depends on their fit to the general conditions of business environments (Daniel I. Prajogo and Oke, 2016; Eisenhardt & Martin, 2000). Environmental dynamism can also generate uncertainty in technological capacity and in a context of change where competitive advantage is often short-lived (Bierly & Daly, 2007). The relationship of the direct effect of environmental dynamism on firms' technological capacity suggests that efforts to develop products strengthen exploration and exploitation (Revilla et al., 2010). Environmental dynamism positively relates to organizational ambidexterity, strengthening technology performance (Soto-Acosta et al., 2018). In light of the preceding arguments, it is proposed that.

H1a. END is positively related to O-HC.

H1b. END is positively related to ORA.

H1c. END is positively related to TEC.

H1d. The effect of END on ORA is mediated by TEC.

2.3. Organizational human capital (OHC)

The success of any business or organization depends on the acquired conventional schooling and employment, capability, expertise,

competency, creativity, and ability of its employees (AlQershi et al., 2022; Barnes et al., 2016; Ployhart & Moliterno, 2011; Tseng et al., 2014). Human capital in the hierarchy of an organization consists of employees' problem-solving abilities, both internally (within the company) and externally (with clients and vendors), as well as their ability to prioritize problems (Mahmood and Mubarik, 2020). In more detail, O-HC is an investment made by a company in distinct and valuable talent and technology that provides a competitive advantage and must be maintained by the company (Farzaneh et al., 2022; Tseng et al., 2014).

It implies that O-HC should be tailored to each company, have strategic value, and be precisely managed (Tseng et al., 2014). Human capital is, therefore, the foundation of a sustainable competitive advantage (Campbell et al., 2012). High levels of human capital and sound organizational decision-making result in high-quality organizational innovation. Employees with a wide range of relevant skills and knowledge will most likely make sound decisions (Hitt et al., 2001). In order to increase their ambidexterity capabilities, organizations must improve their ability to assimilate technological knowledge from outside sources (Vinding, 2006). Therefore, the following hypothesis is proposed.

H2a. O-HC has a significant effect on ORA

H2b. O-HC has a significant effect on TEC.

H2c. The effect of O-HC on ORA is mediated by TEC.

2.4. Technological capacity (TEC)

A company's technological capacity is its ability to perform technical functions that impact performance, such as researching, developing, and adapting new technological solutions in designing, delivering, and updating current technological practices and information to remain competitive in a dynamic market (Andrade et al., 2020; Lember et al., 2018). Current literature employs the term technological capacities of companies to gain a market advantage; this includes technological capacities, R&D capabilities, and innovation capacities (Davcik et al., 2021). For example, in India's IT sector, technological capacity is used to map the formation of national industries that achieve domestic and international competitiveness in a swiftly changing technological environment (Brunner, 1991). Through technological capacity, other technologies and new knowledge and techniques can be integrated (Figueiredo & Piana, 2018; Kahle et al., 2020). Because it facilitates updating and mobilizing knowledge, the connection between scientific prowess and academic understanding is crucial to creating cutting-edge technologies and forward-thinking methods. There must be a close connection between TEC and information because it facilitates the dissemination of current information and the development of novel techniques and methods (Martinez-Conesa et al., 2017). Companies depend on technological capacity incorporating various exploitative and exploratory processes, such as innovation capability (Atuahene-Gima, 2005). Technology is a means of connecting businesses with their consumers (Tsou et al., 2014). The company utilizes technology to enhance its capacity to collect customer data (Bitner et al., 2000). Technical expertise, research and development (R&D) resources, and a solid technological foundation can all play a significant role in developing innovative products that meet better-designed market demands (Jeong et al., 2006). In order to obtain new technologies from outside sources, a company's level of technological competence is critical (Tsai & Hsieh, 2009). Possibly, as a company's TEC increases, so will its collaboration efforts (Moon, 1998). A company's technological capacity can be measured by comparing its research and development costs to its revenue (Moon, 1998). Understanding the significant factors influencing technological capacity development in newly industrialized nations can facilitate comprehension of the economic development process (Brunner, 1991). The pace and impact of technology vary significantly across organizations. Some organizations manage the development of dynamic technological capacity and undergo rapid and transformative change, whereas others undergo gradual change (Lember et al., 2018). Organizations with a dynamic technological capacity are adept at managing ambidexterity and pursuing new solutions while maintaining a high level of service (Lember et al., 2018). Given these data, we can make the following inferences.

H3. ORA is significantly influenced by TEC

3. Methods

This quantitative research based on a survey seeks to answer the question, "How does human capital in financial institutions affect ambidexterity mediated by technological capacity?". This survey uses quota sampling to collect data from 107 banks in Indonesia (OJK, 2020b). Commercial Banks were chosen as the study's sample area due to their population size and concentration of conventional banks that offer payment traffic services as part of their operations. The study population consisted of executives from the financial sector in Indonesia. The 217 respondents of this study were distributed to 107 bank institutions. Responses from respondents were considered to complete 63 questionnaires, so the response rate of this study was 29.03 percent because, allegedly, financial institutions in Indonesia are very closed. Research about human capital practices using PLS-SEM studies may have smaller samples than other categories of business research due to demographic factors and sample quality (Ringle et al., 2018). Earlier investigations in the banking industry had 50 or fewer participants (Hummel et al., 2021; KPMG, 2015; Scholtens, 2009; Yip & Bocken, 2018).

The questionnaire consists of 35 questions that collect data on participants' perceptions of organizational ambidexterity (ORA), human capital (O-HC), technological capacity (TEC), and environmental dynamism (END) on a 7-point scale. This investigation utilized a Microsoft form and the SMART-PLS software to collect and analyze feedback data. A Microsoft form survey was administered using banking executives' email and WhatsApp accounts to gauge their perceptions of organizational ambidexterity. To ensure instrument reliability, we relied on metrics from previous research. Four concepts were used to develop the model: organizational ambidexterity (ORA), technological capacity (TEC), organizational human capital (O-HC), and environmental dynamism (END). We adopted the ORA instruments from (Shafique et al., 2022; Yunita et al., 2023). The END instruments were acquired from (Mohammad, 2019). Andrade et al. (2020) were our source for the TEC instruments. Finally, we adopted the O-HC instruments. from Vidotto et al. (2017).

4. Results

The results of our data analysis based on a questionnaire designed specifically for this study are presented in this section. This study investigates the interrelationships between organizational ambidexterity, technological capacity, human capital, and environmental dynamism. Research related to business and management should contain numerical data that can be practically quantified to answer research questions (Frels & Onwuegbuzie, 2013). Saunders, Lewis, and Thornhill (2019) said that quantitative data generally only expresses a narrow meaning if it is not further processed and analyzed. Data will have meaning and use after being analyzed and interpreted. Analysis techniques will help in realizing the research process and objectives.

This investigation examines the convergent validity between items and the measurement model. Low outer loading indicators were removed from the construct in Fig. 1. Hair et al. (2017) state that loading factors more significant than 0.7 indicate the dependability of the indicator. These indicators were END1 (0.106), END8 (0.324), and ORA7 (0.578). For these reasons, items with loadings below 0.60 were deemed

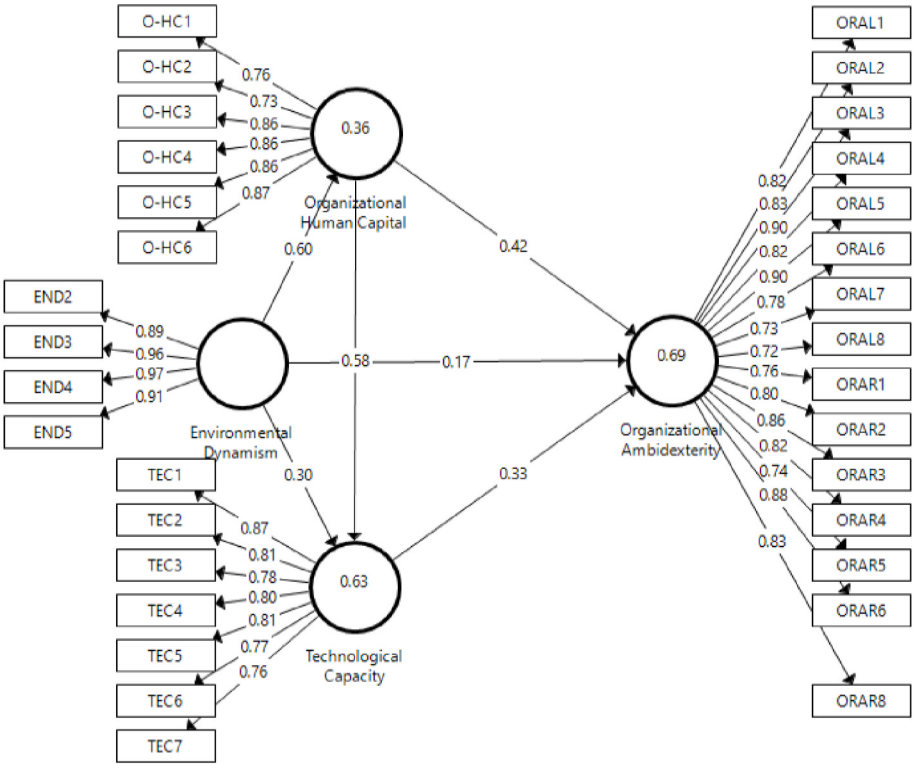

Fig. 1. Analysis of path coefficients.

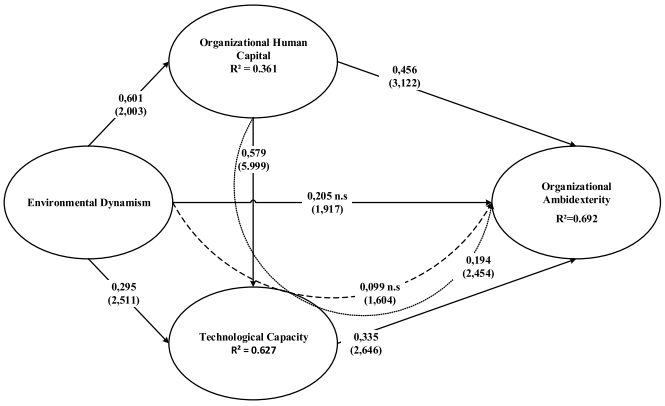

Fig. 2. The structural model's Results.

unreliable for measuring constructs. Table 1 shows that ORA loadings range between 0,723 and 0,899. At the same time, TEC loadings vary between 0,763 and 0,873. END loadings range between 0,890 and 0, 966. Lastly, O-HC loadings vary between 0,733 and 0,869 (see Fig. 2).

Hair et al. (2019) recommend a Cronbach's Alpha (CA) of 0.7 or above. Composite reliability (CR), as shown in Table 3, demonstrates internal reliability consistency (Hair et al., 2017). Table 3 demonstrates that the AVE is more significant than 0.5 for all factors (see Table 4).

This study also examines the Heterotrait-Monotrait Ratio (HTMT) shown in Table 2, which ranges from 0,628 to 0,815, demonstrating adequate discriminant validity.

The results of the structural model analysis are displayed in the following table.

We used Importance-performance map analysis (IPMA) to estimate path coefficients by considering the average latent variable score (Hair et al., 2017). In particular, IPMA compares the endogenous construct of organizational ambidexterity (ORA) with END, O-HC, and TEC constructs. As a result, the O-HC construct is most pertinent for managerial actions in the PLS path model in Fig. 3.

Due to their substantial effect on organizational ambidexterity (ORA), such an analysis will significantly benefit this study's human capital (O-HC) construct indicators.

While Fig. 4 depicts IPMA, the most influential indicator contributing to ambidextrous commercial banks is the ED5 indicator, associated with "The unpredictability of changes in the company's external environment."

5. Discussion

This study investigates how TEC influences END and O-HC, ultimately leading to ORA. The H1a: environmental dynamism and organizational human capital (END → O-HC), Strong and substantial evidence supports the relationship between environmental dynamism and organizational human capital ($\beta = 0{,}601$, $t = 2003$ and $\rho = 0{,}045$). This result aligns with Ketkar and Sett (2010), who argue that human capital functions as a buffer between the effects of an unpredictable setting and the economic performance of businesses operating in it. H1b, the notion that END and ORA are correlated strongly, is unsupported because the t-stat is 1,642, and ρ is 0,101 ($\rho > 0.05$). In line with previous research, the results of this study indicate that the moderating impact of environmental dynamism does not affect ambidexterity, particularly activities focused on technological capacity in small and medium-sized enterprises (SMEs) (Andrade et al., 2020). These results supported hypothesis H1c: environmental dynamism positively affects technological capacity. This conclusion is consistent with the dynamic ecosystems described by Andrade et al. (2020), in which technological capacity can significantly impact discovery.

Second, we hypothesized that the variables representing O-HC would have a positive correlation with ORA ($\beta = 0{,}423$ and $\rho < 0.05$). Following our expectations for employee competence, qualifications, and behavior outlined in the banking code of ethics, the selection system has demonstrated that O-HC increases organizational ambidexterity

Table 1
Convergent validity.

	Items	Loadings	CA	CR	AVE
Environmental Dynamism (END)			0,950	0,964	0,870
Variations in consumer preferences	END2	0,890			
Changes in technology affect products and services	END3	0,964			
Strategies and actions of competitive rivals	END4	0,966			
The unpredictability of alterations in the company's external environment	END5	0,910			
Organizational Human Capital (O-HC)			0,906	0,928	0,682
Employee competence by their position	O-HC1	0,764			
The company supports the improvement of employee qualifications	O-HC2	0,733			
Employee behavior refers to the banking code of ethics	O-HC3	0,860			
Skill-oriented with a strict selection system	O-HC4	0,855			
Skill improvement with continuous training programs	O-HC5	0,864			
Improved employee motivation (such as appropriate payroll systems and performance appraisals)	O-HC6	0,869			
Technological Capacity (TEC)			0,908	0,926	0,642
Our bank can employ a variety of technologies.	TEC1	0,873			
Our bank can develop products more efficiently than competing businesses.	TEC2	0,811			
Our bank can design systems more efficiently than other businesses	TEC3	0,781			
Our bank can process transactions more efficiently than other businesses	TEC4	0,799			
Our bank can learn new techniques.	TEC5	0,807			
Our bank can develop innovative technological solutions.	TEC6	0,768			
Our bank possesses innovative technology investment capabilities.	TEC7	0,763			
Organizational Ambidexterity (ORA)			0,963	0,967	0,664
Our bank tries to get better at using the technology it has so it can be more productive.	ORA-L1	0,818			
Our bank strives to improve its ability to discover solutions to customer issues.	ORA-L2	0,834			
Our bank aims to bolster its current product development expertise.	ORA-L3	0,897			
Our bank tries to improve the product/service it already offers.	ORA-L4	0,818			
Our bank routinely makes minor but necessary modifications to existing products and services.	ORA-L5	0,899			
Existing clients of our bank are notified of product/service enhancements.	ORA-L6	0,777			
Our bank improves the effectiveness of product/service delivery.	ORA-L7	0,735			
Our bank increased services for existing clients.	ORA-L8	0,723			
Our bank can acquire cutting-edge technologies.	ORA-R1	0,765			
Our bank can establish a competent management structure.	ORA-R2	0,803			
Our bank can develop novel products and services.	ORA-R3	0,860			
Our Bank research to develop novel products/services	ORA-R4	0,816			
Our bank markets each new product or service.	ORA-R5	0,741			
Our bank takes advantage of new opportunities.	ORA-R6	0,884			
Our bank actively pursues and solicits new customers.	ORA-R8	0,823			

Table 2
HTMT.

	1	2	3	4
1. END				
2. OHC	0,628			
3. ORA	0,658	0,815		
4. TEC	0,667	0,807	0,776	

Table 3
The direct effect.

	β	T Statistics	P Values	Result
H1a: END → O-HC	0,601	2003	0,045	Supported
H1b: END → ORA	0,168	1642	0,101	Rejected
H1c: END → TEC	0,295	2511	0,012	Supported
H2a: O-HC → ORA	0,423	3122	0,002	Supported
H2b: O-HC → TEC	0,579	5999	0,000	Supported
H3: TEC → ORA	0,335	2646	0,008	Supported

Table 4
Indirect result.

Path	β	T Statistics	P Values	Result
H1d: END → TEC → ORA	0,099	1604	0,109	Rejected
H2c: O-HC → TEC → ORA	0,194	2454	0,014	Supported

(Mahmood and Mubarik, 2020). O-HC influences technological capacity significantly; the hypothesis is accepted because the t-stat is 5,999, the ρ is 0.000, and coef is 0.579. These findings answer the research query, "Does organizational human capital affect technological capacity?" This result illustrates the importance of human capital and technology in digital banking transaction operations. Excellent human resources and the company's technological expertise are the pillars of an increasingly dynamic business environment. Human resource practices assist organizations in accomplishing digital transformation and improved performance (Álvaro Nicolás-Agustín et al., 2021). It is critical to mix human resources and technology to maximize the success of the robotics transformation process (Ballestar et al., 2022). According to studies on manufacturing businesses, the success of Industry 4.0 is strongly dependent on the company's capacity to identify human resources well (Singh et al., 2022). Also accepted is the third hypothesis regarding the relationship between TEC and ORA. This hypothesis is supported by t-statistic = 2,646, ρ = 0.008, and a path coefficient of 0.335. Andrade et al. (2020) revealed that TEC positively influenced ORA, but only in the exploratory strand of ambidexterity.

Similarly, research in Spain's manufacturing sector reveals a positive correlation between technology and ambidexterity (Soto-Acosta et al., 2018). Finding a balance between discovery and exploitation is challenging in the financial sector. In particular for Indonesia, new variables

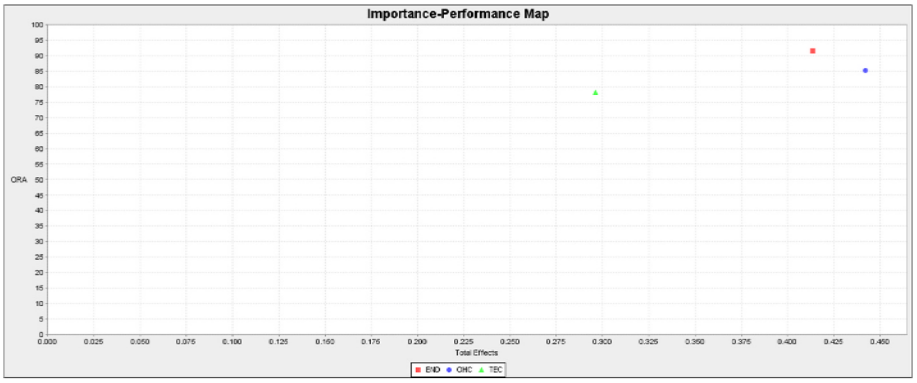

Fig. 3. Construct IPMA for organizational ambidexterity.

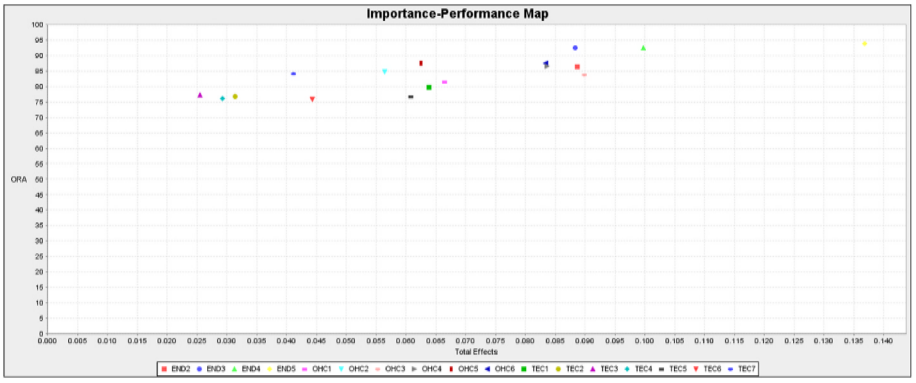

Fig. 4. Importance-Performance Map Indicators for the target indicator ORA.

are expected to emerge from the role of technology in making commercial banks ambidextrous.

5.1. *The mediating role of technological capacity*

A significant positive link between END and ORA via TEC, as expected by the ((END → TEC → ORA) hypothesis, is not substantiated. The findings of this study corroborate those of others in that they demonstrate that ambidexterity, particularly technological capacity-centered activities in small and medium-sized enterprises (SMEs), are immune to the moderating influence of environmental dynamism (Andrade et al., 2020). H2c is the effect of technological capacity that mediates the relationship between organizational human capital and ambidexterity. Because the t-statistics value (2,454) is greater than the t_ (table) value (1.96) or because the p-value (0.014) is less than the significance level (0.05), the results indicate that the hypothesis is supported. This result indicates that technological capacity mediates the relationship between organizational human capital and exploration and exploitation ambidexterity. The (O-HC → TEC → ORA) hypothesis predicted that organizational human capital would have a positive relationship with organizational ambidexterity through technological capacity (b = 0,194 and $\rho < 0.05$). In accordance with Mahmood and Mubarik's (2020) research on small and medium-sized businesses shows that human capital substantially impacts technology assimilation capacity. This study demonstrates that human capital affects an organization's technological capacity. Although Mubarik's research was conducted in small and medium-sized businesses, it was discovered after testing that the human capital construct also positively impacted large corporations, particularly banks.

In addition, studies on adopting corporate robotics support this finding, indicating that combining technology and human resources is the key to advancing the efficiency of the transformation process toward established technology (Ballestar et al., 2022). Human capital plays a role in accelerating technological catch-up (efficiency improvement), according to a study of 40 countries (Mastromarco & Simar, 2021). Mikalef et al. (2020) found that human capital as a component of extensive data analysis capabilities significantly impacts the dynamic capabilities of Norway's large businesses. The findings support the claim that human resource management practices are crucial in implementing digital transformation processes (Álvaro Nicolás-Agustín et al., 2021). Mention and Bontis (2013) contend that human capital is a facet of intellectual capital and crucial for attaining corporate innovation (Kucharska, 2022). Technological capacity in banks refers to the ability of banks to perform technical functions by adapting new technological solutions. Strengthening and optimizing digital channels is increasingly essential to create loyalty and drive corporate success. Banking as a financial services industry ranks highest in technological transformation (Brock & von Wangenheim, 2019).

5.2. *Implication*

This study establishes that ambidextrous organizations emerge when a firm's technological capacity aligns with the human capital, including improving employee qualifications and continuous training programs. Following the existing business dynamics, the expanding use of technology in the financial industry will inevitably lead to new excesses, namely security risks associated with using technology. However, superior human capital will fortify and adapt to a dynamic environment, such as confronting and being able to compete with innovative financial sector business concepts and fraud. Importantly, our findings also provide invaluable insights for managers in industries that heavily rely on high levels of innovation activity and the significance of knowledge assets; in fact, the banking sector shares characteristics with most high-tech and knowledge-based businesses. Thus, the bank's focus related to

organizational human capital is (a) recruiting a workforce with exceptional talent, (b) developing workers' skills through a continuous training system, and (c) working conditions with a sound remuneration system and professional relationships.

6. Conclusion

The following are the findings of this investigation. There is a significant relationship between human capital and ambidexterity through technological capacity. Therefore, it is suggested that organizations provide the necessary technological capacity for ambidexterity's effective exploitation and exploration. Human resource management strategies are crucial in successfully implementing the digital transformation process. Based on the earlier findings, it has been determined that technological capacity does not support environmental dynamism to attain ambidexterity.

The limitations of this study present opportunities for future study. Our data is derived solely from the banking industry and one country, which may limit the generalizability of our findings. However, this method improves internal validity because we can control for exogenous industry variables. Other future research suggestions may also be considered. For instance, the relationship between organizational human capital and CEO ambidexterity is ascribed to its impact on exploration or exploitation or the moderating effect of cultural characteristics on organizational ambidexterity in other sectors.

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CRediT authorship contribution statement

Tyna Yunita: Conceptualization, Writing – original draft, Writing – review & editing. **Sasmoko Sasmoko:** Methodology, Supervision, Writing – original draft. **Agustinus Bandur:** Methodology. **Firdaus Alamsjah:** Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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