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# Decoding Organizational Dynamics: Navigating the Ambiguity Between Flexibility and Agility in Digital Entrepreneurship through a Systematic Literature Review



Afifah Shalihah<sup>1</sup>, Sam'un Jaja Raharja<sup>2</sup>, Margo Purnomo<sup>3</sup>

<sup>1,2,3</sup> Universitas Padjadjaran Business Administration Study Program, West Java, Indonesia

ABSTRACT: Flexibility and agility are two organizational behavior traits that help businesses gain a competitive edge, deal with changing expectations, and satisfy current market demands. Academically, however, there still needs to be greater distinction and understanding between these two notions among scholars and practitioners. Because of the ambiguous borders in the definitions of flexibility and agility, uncertainty developed into a theoretical interest. This essay tries to offer the notion of Flexibility based on publishing patterns in digital entrepreneurship studies considering the limitations. Introduce the idea of agility based on current research trends in digital entrepreneurship. Present a study of agility and flexibility based on digital characteristics. This article chooses articles and presents them based on the main issue using the Systematic Literature Review technique. Based on the outcomes of conversations with other writers, the author provides 85 pertinent pieces and 44 that are thoroughly addressed. According to the year, the nation, and the consequences of digital elements, the author proposes the idea of order flexibility and adaptability. Other dominant ideas from the primary theme are discovered in this article, like the idea of sector-based discussion and the inclusion of administrative functions.

**KEYWORDS:** Systematic Literature Review; Digital Implementation; Flexibility; Agility; Entrepreneurship.

#### I. INTRODUCTION

Flexibility and Agility include two characteristics of organizational behavior that enable companies to achieve a competitive advantage, face varying demands, and meet current market demands. However, academically, there is still confusion among academics and practitioners in understanding and differentiating these two concepts. Flexibility and agility are often interpreted in the same way (Fayezi et al., 2017). Several experts such as (Abdelilah et al., 2018; Chiang et al., 2012) emphasize that the concepts of synchronization and agility are different.

This confusion becomes a theoretical gap caused by unclear boundaries in defining flexibility and agility. Some academics consider agility to be central to flexibility. While other academics argue that agility is the development of flexibility. Considering these conditions, in this article, the author refers to Christopher & Towill (2000) who state that flexibility is a component of agility. Meanwhile, agility is a broader concept. Agility was born from increasing market volatility and the trend for companies to migrate to companies that have agility in their supply chains (Christopher & Towill, 2000).

Quoted from the Harvard Business Review in 2016, Darrell K. Rigby, Jeff Sutherland, and Hirotaka Takeuchi revealed that the concept of agility in entrepreneurship emphasizes things such as prioritizing consumers over operational processes, focusing on finished goods that are still in prototype form rather than regular documentation, more sensitive to changes that need to be made than following existing plans, and shortens the process of controlling consumers. Still in similar research, Agility is useful for creating new successors to prepare for replacement players if it is time for the previous leader to retire. In the important aspect of agility which plays a role in business progress, Permana et al. (2021) found that the role of the agility concept can stimulate competitive action and sustainability in competitive advantage.

Digital Entrepreneurship has become a hot topic in the field of product innovation, and business models, and is involved in research on aspects of entrepreneurship growth. Digital Entrepreneurship is at the intersection of digital technology and entrepreneurship. Digital entrepreneurship can create new business opportunities to keep companies alive by developing and using the latest digital technology to accelerate business transformation. Based on this, research on strategic entrepreneurship

needs to be expanded to include digital concepts and constructs that aim to see how the role of digital technology can change the uncertainty of opportunity conditions in the process and results of business creation.

Practitioners and academics such as Bughin et al. (2017), Mazzei et al. (2017), and Shatila et al. (2017) said that digital entrepreneurship, which is used for product innovation and business model innovation for the growth of entrepreneurial companies, has received important attention in the study of e-commerce and strategic entrepreneurship. Digital entrepreneurship is an intersection of the field of digital technology studies and the field of entrepreneurship studies. Digital entrepreneurship creates new business opportunities to maintain sustainable business transformation. Based on this, research related to Strategic Entrepreneurship needs to be improved by involving digital technology as a support in overcoming uncertainty and seeking opportunities in ongoing businesses. Entrepreneurship Agility studies in previous research have not discussed the role of agility in digital entrepreneurship (Karimi & Walter, 2021a). Referring to the fact that the number of studies on the concept of entrepreneurial agility is still small, research on the concept of entrepreneurial agility includes measuring the variables that influence ENTAG and investigating the influence of the application of ENTAG on digital entrepreneurship. In research conducted by Karimi & Walter (2021), the component of ENTAG tested was the critical dimension, the influence of the concept applied in influencing decisions in seeking opportunities combined with profits in digital entrepreneurship.

This article aims to: first, present the concept of flexibility based on publication trends in digital entrepreneurship studies. The second objective is to present the concept of agility based on publication trends in digital entrepreneurship studies. Third, presents research mapping on flexibility and agility studies based on digital aspects.

#### II. RESEARCH METHOD

This article uses a Systematic Literature Review approach by utilizing Scopus as a search database. This article uses a combination of research streams in articles written by Lame (2019) and Torres-Carrion et al. (2018) as a reference for conducting research as well as research conducted by Abdelilah et al. (2018) and Henriette et al. (2015) as a reference for filling in research flow components. The author chose to use this flow reference to find research trends by year and find gaps in the topics raised in the article. The following is the flow of research carried out:

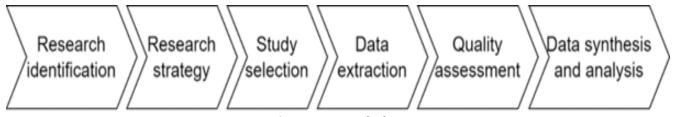


Figure 1. Research Flow
Source: Researchers' Analysis

#### A. Research Identification

In this section, the author explains the identification of the research carried out. The author's confusion creates a question, namely:

RQ1: How is the development of the concept of flexibility in the realm of entrepreneurship in the field of digital technology?

RQ2: How has the concept of agility developed in the realm of entrepreneurship in the field of digital technology?

RQ3: What other concepts are involved in the concept of flexibility and the concept of agility in the realm of entrepreneurship in the field of digital technology?

## B. Research Strategy

In this section, the author explains the components involved in the research. The author chose the Scopus electronic library as a means of searching for data. Scopus is a reputable and recognized scientific publication database in the world. Based on the background above, the author then decided and agreed that the search strings involved were digitization, digitization, flexibility, agility, and entrepreneurship. Considering various kinds of endings or suffixes, the author also involves Truncation (\*) and Boolean operators (AND and OR). The search area is carried out in the title, abstract and keywords of the article. The final search string is expressed as follows: (TITLE-ABS-KEY (( flexibilit\* OR agility\* ) AND entrepre\*)) AND (digital\* OR digiti\*)

#### C. Study Selection

After agreeing on the search string, we determine the inclusion and exclusion criteria. The purpose of creating inclusion and exclusion criteria is to create problem boundaries so that research is more focused. Each criterion that has been discussed and agreed with the author is presented in Table 1.

**Table 1. Inclusion and Exclusion Criteria** 

Document Criteria	Inclusion	Exclusion
Source Type of Document	Journal	Proceeding
Document Type	Article	Conference paper, Book, Review
Language	English	Non-English Paper
Topics	<ul> <li>Agility Context in Entrepreneurship         Study with digital tech implementation</li> <li>Flexibility Context in Entrepreneurship         Study with digital tech implementation</li> <li>Both contexts in Entrepreneurship         Study with digital tech implementation</li> <li>Empirical Research</li> </ul>	<ul> <li>Entrepreneurship only</li> <li>Digital tech usage only</li> <li>Talks about the main context that is not in entrepreneurship fields.</li> <li>Talks about conceptual performance framework</li> </ul>
Relevant Papers	Agreement of Authors	Not Agreed by Authors

Source: Agreement of Authors

#### D. Data Extraction

After determining the inclusion and exclusion criteria, the author created limitations in the system provided in the Scopus database. The final search string involving the filtering menu available in Scopus is expressed as follows: (TITLE-ABS-KEY (( flexibilit\* OR agility\* ) AND entrepre\*)) AND (digital\* OR digiti\*) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "ENGLISH")). The search string returned 176 articles.

The next stage, the author held a group discussion to agree on relevant and irrelevant articles. If an article is found to be doubtful, the writing team rereads the document in its entirety down to the bibliography section and then agrees on whether to be involved in the research. Even though an article has the main topic keyword, it does not necessarily mean that the article is relevant and meets the inclusion criteria. The author's way of determining the relevance of the topic of an article is by reading and reviewing the abstract of each article. One of the criteria for an article that can be used as an example is an article that discusses company agility. The article does not state that the company operates in the digital sector, but the company uses digital platforms as a means of product promotion.

The results of discussions and agreements made with the author resulted in 91 documents that were not relevant and 3 others that could not be read in their entirety, so the article was classified in the irrelevant article category. The authors agreed that 85 articles were relevant and worthy of being involved in research.

#### E. Quality Assessment

The research team in this study agreed on 85 documents that were ready for analysis. Of the 85 articles, it was found that 38 articles discussed the concept of agility, 44 articles discussed flexibility, and 3 articles discussed both concepts. Several of the resulting articles were grouped based on digitalization aspects, namely: digitalization, digitization, and digital transformation.

#### F. Data Synthesis and Analysis

The research team grouped several articles that had undergone a sorting process. One article each was taken from the 85 relevant documents which could represent categories based on the year of research. The selection of representative articles was carried out by the author to see publication trends more specifically for a case. Apart from looking at trends in both concepts, the authors agreed to select articles based on publication trends by selecting one representative from each year in each category. This selection refers to topics that have discussions based on sectors and discussions based on aspects of business administration. A total of 44 articles out of the 85 discussed in the article went through a selection process. The remaining articles are displayed in table form in the results and discussion sections. The following are the grouping details that have been agreed upon by the author:

**Table 2. Articles Filtered** 

Total of Articles in Each Year			
Context	Before Filtering	After Being Filtered	
Flexibility in Digitalization	16	11	
Flexibility in Digitization	16	8	
Flexibility in Digital Transformation	12	7	
Agility in Digitalization	8	5	
Agility in Digitization	16	5	
Agility in Digital Transformation	17	8	

Source: Scopus Processing Data by Authors

#### **III. RESULTS & FINDINGS**

This section discusses the process of selecting relevant papers and explains the development and relationship between flexibility and agility. In short, the process of selecting papers at the beginning is not only from papers that contain keywords according to the topic discussed by the researcher, but more about the meaning discussed in the paper, whether it is related to digital applications, discusses entrepreneurship topics, and contains the keywords flexibility and agility.

In this topic, aspects of digital implementation are further divided into 3. Following what is stated on the Forbes website (Bloomberg, 2018), the digitalization, digitization, and digital transformation context have different functions and uses. The word digitalization is defined as the application, use, and movement from manual to digital processes. Digitization is defined as the process and flow of implementation, use, or movement to digital. Digital transformation is defined as the impact of implementing, using, or moving to digital.

#### A. Three Dominant Components in Search Engine

Table 3. Dominant Components in this research

	7 Dominant	Countries	
Countries	Digitalization	Digitization	Digital Transformation
US	7	7	4
UK	0	5	0
China	3	3	3
German	0	6	3
Italy	1	4	2
Malaysia	0	1	2
Australia	0	2	1
	7 Dominant	Affiliation	
Affiliations	Digitalization	Digitization	Digital Transformation
Financial University Russian	1	2	0
Binus University Indonesia	1	1	1
Universiti Sains Malaysia	0	0	0
Universiti Utara Malaysia	0	0	0
RMIT University	1	0	0
University of Brimingham	0	0	0
Università della Calabria	1	1	0
	7 Authors D	ominant	
Authors	Digitalization	Digitization	Digital Transformation
Mukhin K	1	0	2
Ahmad N.H	0	0	0
Al-Omoush, K.S	0	0	2
Alkhoori, A.A	0	1	1
Corvello, V.	1	0	0

7 Dominant Countries			
Countries	Digitalization	Digitization	Digital Transformation
Kurilova, A.	0	0	2
Lee, H	0	1	0

Some affiliates and authors have a value of 0 for the number of digitized documents because the search string displays the number of documents that have been created according to the search string. However, in this article, it was agreed by all the authors that the articles written by several authors and affiliates were not relevant to the topic raised in this article.

#### B. Digital Tech Implementation in Year

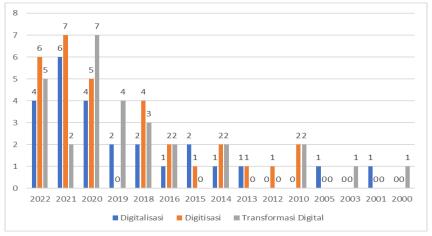


Figure 2. Digital Tech Implementation year by year

**Source**: Researchers Analysis

After investigating 85 selected articles, research in the field of entrepreneurship regarding digital adoption over 22 years is predominantly centered on the topic of digitization, with 31 articles, followed by digital transformation with 29 articles, and digitalization with 25 articles. What is unusual is the finding related to the concept of flexibility, where the topic of digital transformation is discussed before the topic of digitalization. Based on the definitions of both aspects, digitalization should be discussed first, but it was found that digital transformation in the context of flexibility was researched earlier. Researchers observe that the trend of using digital technology is evident from the changes created.

Although not the initially discussed topic, digitization has been quite actively discussed starting from 10 years ago and reached the highest number of publications in 2021, coinciding with the global impact of COVID-19. Many businesses utilized the implementation of digital technology as a regulatory solution and a trust-building mechanism for actors in the business chain. Considering this phenomenon, the author assumes that discussing the transition process is crucial in the successful utilization of digital technology implementation.

# C. Evolution of Flexibility Context on Digital Tech Usage in Entrepreneurship Study

Several scholars hold different opinions on the concept of flexibility. According to Lavington (1920), flexibility is a concept present in various fields of research, including economics, decision-making, and production. In contrast, Upton (1994) posits that flexibility is the capacity to alter the environment or respond to uncertainty with minimal effort and maximum performance. Gerwin (1993) asserts that flexibility is a multidimensional concept that influences competition and customer satisfaction.

In the realm of information technology, flexibility aims to streamline processes and facilitate access to work. For instance, the benefits of flexibility in mobile banking are evident when conducting transactions without the need to visit an ATM; instead, one can transfer funds through mobile banking or scan a barcode (Hadi & Novi, 2015). Another example is the flexibility of online reservations, which can be performed on various platforms such as web and mobile applications (Putri, 2022). The utilization of a mobile device becomes advantageous in situations where opening a laptop outdoors is not feasible.

The confluence of flexibility and digitization in entrepreneurship gained momentum in the early 2000s, with Podlas (2000) pioneering the exploration of the commercial sex industry's embrace of digital platforms. Neff and colleagues (2005) expanded this paradigm, emphasizing entrepreneurial aspects within flexible digitization. Subsequent research, exemplified by Zhu's (2013) focus on education and Gay's (2014) insights into the film industry, highlighted the multifaceted applications of digital

flexibility. The trajectory continued across diverse industries, from Trappel's (2016) improvements in public service broadcasting to Grenčíková et al.'s (2021) exploration of 3D printing. Pérez-Macías & Fernández-Fernández's (2022) study brought a unique perspective, emphasizing the empowering role of digitization flexibility in business development for individuals with disabilities in Spain. This evolutionary journey showcases the dynamic relationship between flexibility and digitization, reflecting ongoing exploration and application in entrepreneurship.

A decade later, Weiß (2010) delved into flexibility in adapting to consumer needs using the Statistica Visual Basic application, marking an evolution in the exploration of flexibility in digitization. Montealegre's (2012) study on Research & Development in IT within urban contexts emphasized the need for governmental support to provide developers with more freedom for exploration. Krajcovic & Hancinsky (2015) highlighted the profound interest in flexibility within IT development decision-making. Rosenblat & Stark's (2016) examination of challenges faced by transportation companies like Uber revealed the application of flexibility in digitization concerning human resources. Ciasullo et al.'s (2018) use of Twitter to gauge interest in carpooling and Yu et al.'s (2022) findings on leader flexibility influencing innovation further demonstrated the diverse applications and evolving understanding of flexibility in digitization.

A year after Poldas's study, Hargadon & Douglas (2001) delved into the application of models impacting innovations, marking a progression in the exploration of flexibility in digital transformation. Thirteen years later, Cannone & Ughetto's (2014) focus on high-tech start-ups and electronics on an international scale showcased the benefits of flexibility in decision-making and market expansion. Subsequent research, including Behmer et al.'s (2016) study on production costs and Rosin et al.'s (2020) evaluation of digital implementation, demonstrated the evolving impact of digitalization on traditional industries. Klus & Müller's (2021) structured leadership topic highlighted leader skills essential for navigating digital transformation. In 2022, the focus on entrepreneurial flexibility underscored its role in company innovation, encapsulating the dynamic evolution of the concept across sectors and organizational facets.

The exploration of flexibility in the digital landscape reveals a widespread impact across diverse sectors, including the commercial sex industry, education, film, public broadcasting, and 3D printing. This underscores the pervasive nature of digitization in shaping various aspects of contemporary life.

Entrepreneurial aspects such as creativity, self-investment, portfolio evaluation, and competitiveness are identified as key components within the digital context, showcasing the dynamic relationship between entrepreneurship and digitization. Empowerment of individuals, particularly those with disabilities, emerges as a significant theme, highlighting the role of digital flexibility in fostering independence and self-realization. In the realm of digitization, the importance of flexibility in adapting to consumer needs is emphasized, along with the need for government support in urban development to foster digital innovations. Digital transformation is marked by the evolution of models impacting company innovations, global implications influencing decision-making, and the importance of leadership skills in navigating organizational goals.

In summary, the quest for flexibility in the digital context uncovers a pervasive impact, integration of entrepreneurial aspects, empowerment of individuals, consumer-centric approaches, global implications, and the evolution of models and skills in the realm of digital transformation. The dynamic interplay between flexibility and digitization is evident across diverse sectors and organizational dimensions.

## D. Evolution of Agility Context on Digital Tech Usage in Entrepreneurship Study

The concept of Agility first emerged in early 1991 through the Lacocca Institute at Lehigh University. Agility is defined as the capacity to face an unpredictable and changing environment, arising from the uncertainty of components and increased consumer demand. It negatively impacts production by making it more tailored to immediate needs, leading to short product lifespans and higher costs. This challenge is addressed by building a production flow that prioritizes savings without sacrificing efficiency components, as proposed by Womack et al. (1990). Recent phenomena of agility in the field of information technology entrepreneurship are evident. Marketing and product innovation are areas frequently applying agility (Abdurrahman et al., 2022; Pranatasari, 2021). Companies now often employ strategies that focus on understanding consumer behavior. A notable consumer phenomenon involves creating parody videos of products launched by companies, highlighting the trend of shrinking product sizes. In response, companies produce advertising videos announcing that their products are no longer small, with a slight price increase.

Agility in digitalization emerged in 2015 with a conceptual model for French and Saudi entrepreneurs, emphasizing digital tools (Dutot & Van Horne, 2015). It expanded to address reorganization needs, emphasizing efficiency and adaptability amid the fourth industrial revolution (Koniagina et al., 2019). Education systems adopted tailored IT for competitiveness (Al Kandari & Al

Qattan, 2020), and Zimbabwean manufacturers strategically used IT for remote communication (Manyati & Mutsau, 2021). In the creative industry, agility fostered creative collaboration through IT (Hindrawati et al., 2022).

Agility in digitization started in 2013, focusing on modern business practices and IT's role in adaptive systems (Chakravarty et al., 2013). Chinese e-commerce exemplified the synergistic impact of digital agility and strategic IT usage (Wang et al., 2018). By 2020, start-ups emphasized agility, combining design thinking and lean production (PRAMONO et al., 2021). Research in Jabodetabek emphasized agility's positive impact on start-ups (PRAMONO et al., 2021), and decision-making methodologies were explored in 2022 (Jafari-Sadeghi et al., 2022).

Agility in entrepreneurship surfaced in 2003, addressing innovation and competitive performance (Sambamurthy et al., 2003). Seven years later, it influenced IT adoption for business expansion using Service-Oriented Architecture (SOA) (Mabry, 2010). Social enterprises leveraged IT for product development (Richardson et al., 2014), Italian companies recognized structured agility for quality improvement (Vagnoni & Khoddami, 2016), and B2B IT businesses saw entrepreneurship orientation positively impacting agility (Tsou & Cheng, 2018). In Jakarta, local businesses illustrated the nuanced relationship between IT adoption, company size, and entrepreneurial orientation (Qosasi et al., 2019). Start-ups in unconventional areas faced maturity challenges (Denis et al., 2020), and leadership in Saudi Arabia's tech sector emphasized the critical importance of agility and structured decision-making (Alkhoori et al., 2021).

The three parts reflect the evolution of the agility concept in the contexts of digitalization, digitization, and digital transformation. In digitalization, agility emerges as a response to the need for efficiency and adaptability in the era of the fourth industrial revolution, with the application of a conceptual model to digital business players from France and Saudi Arabia. Digitalization also extends to the education sector, where the specific implementation of information technology enhances school competitiveness. Meanwhile, digitization illustrates a shift in focus from modern business practices to digitization strategies in Chinese e-commerce. Start-ups also emphasize the importance of agility by combining design thinking and lean production principles. Research in Jabodetabek highlights the positive impact of agility on start-up behavior, while decision-making methodologies become a significant focus in 2022.

In the context of digital transformation, agility has manifested in innovation and competitive business performance since 2003. In 2010, company leaders began adopting information technology for business expansion, particularly using Service-Oriented Architecture (SOA). Social enterprises leverage IT for product development, while Italian companies recognize the need for structured agility for quality improvement. B2B IT businesses experience a positive impact from entrepreneurial orientation, and in Jakarta, IT adoption is measured based on the size and entrepreneurial orientation of local businesses. Start-ups innovating in the space sector face organizational maturity challenges, and leaders in Saudi Arabia's technology sector emphasize the importance of agility, structured decision-making, and IT capabilities for business success.

Overall, the evolution of the agility concept reflects a continuous transformation in responding to challenges and opportunities in the digital era. From adapting to industrial changes to emphasizing digital strategies, agility proves to be key in navigating the complexity and dynamics of the ever-evolving business world.

# E. Evolution of Flexibility & Agility Context on Digital Tech Usage in Entrepreneurship Study

The year 2014 marked the union of flexibility and agility concepts in an article. The article discusses competitive strategies involving collaboration with competitors and falls under the topic of digitization (Bengtsson & Johansson, 2014). This concept reemerged in 2018 and 2022. The 2018 article delves into the use of blockchain in real estate businesses, falling under the realm of digitization or the application of digital technology (Veuger, 2018). In 2022, an article addressing both concepts is situated within the organizational culture components in the telecommunications industry. This article falls under the discussion of digital transformation or the impact of digital implementation (Ahmad et al., 2022).

# F. Grouping Other Articles Based on Digital Tech Usage

The articles in the table below are the remaining relevant articles that were not included in the discussion due to their similar content to the negotiated articles by the author. Therefore, these articles are not discussed specifically but are still included in the article. The following are references to relevant articles that are not involved:

**Table 4. List of references** 

Other references that are not in the inclusion category	
Context	References
Flexibility in Digitalization	(Chen et al., 2021; Madhusoodanan et al., 2022; Renton & Richard, 2020; Zhang, 2021;

Other references that are not in the inclusion category		
Context	References	
	Zotova et al., 2021)	
Flexibility in Digitization	(Chau, 2010; M. V. Ciasullo et al., 2018; Hall, 2016; Heredia et al., 2022; Herrmann et	
	al., 2018; Kim et al., 2022)	
Flexibility in Digital	(Rehman et al., 2018; Reid-Musson et al., 2020; Rodríguez-Díaz et al., 2020; Su et al.,	
Transformation	2022)	
Agility in Digitalization	(Corvello et al., 2022; Pramono et al., 2021; Teoh & Chan, 2020)	
Agility in Digitization	(Al-Darras & Tanova, 2022; Alkhoori, Sedik, et al., 2021; Bouncken et al., 2020; Denning,	
	2021; Ghezzi & Cavallo, 2020; Karimi & Walter, 2021b; Wairimu et al., 2021; Werder et	
	al., 2021; Zheng et al., 2022; Zielske & Held, 2020)	
Agility in Digital Transformation	(Al-Omoush, 2020; Andri et al., 2020; Basu & Bhola, 2022; Detoya & Gempes, 2020;	
	Frolova et al., 2019; Koch, 2010; Mandal & Saravanan, 2019)	

Sources: Author's data analysis

#### **CONCLUSIONS**

The concept of flexibility and the concept of agility in domains have begun to be discussed frequently starting in 2018. This concept was absent from the publication world for the longest time four years, starting from 2006 to 2009. The concept of flexibility with domain boundaries has been discussed for 22 years starting from 2000 to 2022. The concept of agility with domain boundaries has been discussed for 19 years starting from 2003 to 2022.

The concept of flexibility and the concept of agility in the field of entrepreneurship studies on digital aspects has spread to various business sectors. The business sector that corresponds to the topic of discussion is dominated by companies in the education sector. Then followed by other topics and sectors such as manufacturing companies, sex workers, transportation, technology, retail, film, broadcasting, construction, 3D printing, smart cities, social media, and telecommunications. Apart from grouping publications based on sectors, the author found other groupings based on the overall context of administrative functions, namely discussions related to leadership, resource management, conceptual discussions, organizational capabilities, operational activities, innovation development, corporate venturing management, production management, discussion of transaction models, and discussion of networking.

Flexibility and agility, while often used interchangeably, exhibit nuanced differences in the realms of digitalization, digitization, and digital transformation. In the domain of flexibility, it is defined by its capacity to adapt and change without compromising efficiency. This concept finds diverse applications across sectors during digitalization, from simplifying processes like mobile banking and online reservations to strategic IT utilization by start-ups and manufacturers in digitization. In the digital transformation phase, flexibility takes on a broader scope, influencing the adoption of innovative models, global decision-making processes, and the refinement of leadership skills.

On the other hand, agility is distinctly characterized as the capacity to confront an unpredictable and changing environment. In the context of digitalization, agility responds to the imperatives of efficiency and adaptability amid the Fourth Industrial Revolution, particularly in the business landscapes of France and Saudi Arabia. As digitization unfolds, agility manifests in modern business practices, IT strategies in Chinese e-commerce, and collaborative creativity within the film industry. The digital transformation stage sees agility driving business innovation, influencing decision-making dynamics, and responding to global forces shaping companies.

While both flexibility and agility play pivotal roles in navigating the complexities of the digital era, the primary divergence lies in their orientations. Flexibility leans towards adjustment and change without sacrificing efficiency, addressing varied needs across digital stages. In contrast, agility places a premium on the ability to swiftly adapt and respond to changes in the dynamic digital environment, showcasing the nuanced distinctions between these two closely related concepts.

#### **ACKNOWLEDGMENT**

Based on the explanation above, potential further research can be carried out from various points of view. In research based on topics and sectors, research can still be carried out because there tends to be little discussion of the sectors found. Discussions based on topics involving new sectors have great potential to contribute to publications. In research based on topics and administrative functions, research can still be carried out because discussions on administrative functions vary based on

company conditions. Discussions based on topics involving other administrative functions have the potential to create refreshment in publication contributions.

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