FOSTERING PERFORMANCE AMONG INDONESIAN EBUSINESS START-UPS: THE ROLE OF INNOVATION CAPABILITY WITH DYNAMIC CAPABILITIES

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by

YULI KARTIKA DEWI

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---- Soli deo Gloria ----

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MEMUPUK PRESTASI DALAM KALANGAN SYARIKAT PEMULA DIGITAL DI INDONESIA: PERANAN KEUPAYAAN INOVASI DENGAN KEUPAYAAN DINAMIK

ABSTRAK

Tujuan penyelidikan ini adalah untuk menonjolkan keupayaan inovasi dalam peranannya untuk mempengaruhi prestasi e-perniagaan melalui kewujudan keupayaan dinamik dan peranan sokongan kerajaan dan orientasi keusahawanan yang dimiliki oleh organisasi dapat mengukuhkan hubungan antara keupayaan dinamik dan prestasi e-perniagaan. Prestasi permulaan e-perniagaan menjadi penting untuk meningkatkan kestabilan ekonomi negara kerana jenis perniagaan ini dapat bergerak secara dinamik dan dapat menyesuaikan diri dengan cepat dengan kemajuan teknologi dalam era digital. Keupayaan untuk berinovasi dan keupayaan organisasi dinamik dalam perniagaan digital masih kurang mendapat perhatian sehingga masih ada sumber minimum dari kajian sebelumnya. Data diambil daripada 117 syarikat permulaan e-perniagaan yang beroperasi di Indonesia dalam masa kurang dari 5 tahun. Kaji selidik ini dijalankan melalui penyebaran soal selidik melalui e-mel dan Google membentuk media digital dan kemudian diproses menggunakan perisian PLS versi 3.0. Penemuan ini diharapkan dapat mengisi jurang pengetahuan yang diperoleh melalui kajian literatur dan membawa penemuan baru yang memperkaya dan melengkapkan kajian pengetahuan yang berkaitan dengan teori RBV dan keupayaan dinamik, terutama dalam konteks hubungannya dengan prestasi syarikat permulaan e-perniagaan di negara-negara membangun. Hasil temuan mendapati bahwa keupayaan proses inovasi adalah factor krusial yang memengaruhi keupayaan dinamik dan peningkatan prestasi Syarikat permulaan e-perniagaan terbukti dari jalur yang terkuat

dari hasil pengolahan data antara variabel-variabel tersebut, peran dukungan pemerintah juga merupakan kunci yang memperkuat relasi antara keupayaan dinamik dengan prestasi e-perniagaan. Syarikat permulaan e-perniagaan dan pemerintah sebaiknya memfokuskan upaya untuk memperkuat kemampuan keupayaan dinamik melalui berbagai pelatihan dan program yang terstruktur serta meningkatkan kapabilitas proses inovasi melalui peningkatan kemampuan sumberdaya manusia yang relevan melalui kerjasama dengan Lembaga pendidikan maupun komunitas terkait digital ekosistem untuk mencapai kinerja terbaik.

FOSTERING PERFORMANCE AMONG INDONESIAN EBUSINESS START-UPS: THE ROLE OF INNOVATION CAPABILITY WITH DYNAMIC CAPABILITIES

ABSTRACT

The objective of this study is to emphasize the impact of innovation capability on e-business performance by examining the presence of dynamic capabilities and the influence of government support and entrepreneurial orientation within organizations. This research aims to strengthen the correlation between dynamic capabilities and e-business performance. The performance of e-business start-ups is vital for enhancing the stability of a nation's economy, since these enterprises possess the ability to operate flexibly and swiftly adjusting to technological advancements in the digital age. Prior research has extensively examined the significance of innovation and dynamic organizational capacities, establishing them as crucial elements for enhancing a company's performance. However, research pertaining to this problem, particularly in the context of digital firms, has received limited attention, resulting in a scarcity of available materials from prior studies. Information was obtained from 117 e-commerce start-up enterprises that have been active in Indonesia for a period of less than 5 years. The survey was carried out by distributing questions using email and Google Form digital platforms, and subsequently analysed using PLS software version 3.0. The findings are anticipated to address the knowledge gap identified in the literature review and contribute a novel discovery that enhances and supplements the study of RBV theory and dynamic capabilities, particularly in relation to the performance of e-business start-ups in developing nations. The study discovered that the capabilities of the innovation process play a crucial role in influencing the dynamic capabilities

and performance enhancement of e-business start-ups as it was proven as the strongest path between those relations. Additionally, the support provided by the government is also essential in reinforcing the connection between dynamic capabilities and the performance of e-businesses. E-business start-ups and the government should focus their efforts on strengthening dynamic capabilities through various trainings and structured programs and improving the capabilities of the innovation process through increasing the capacity of relevant human resources through cooperation with educational institutions and communities related to the digital ecosystem to gain higher performance.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This study consists of five chapters that are methodically structured to clarify the process of discerning originality in order to tackle the challenge and make noteworthy contributions to both theoretical and practical field. Chapter 1 presents a comprehensive introduction to the study, encompassing the research background, research problem, research aims, research questions, scope of the inquiry, and the significance of the study. Additionally, it delineates the structure of the next chapters. Chapter 2 includes a thorough examination of existing literature and identifies areas of inquiry that have not been addressed in a previous studies. The study is examined and condensed to generate hypotheses. Chapter 3 outlines the methods and research analysis used in this study, while Chapter 4 presents the findings and encourages discussion on the results. The concluding chapter offers additional elucidation on the importance of this research, its ramifications for every party involved, and concludes in a definitive summary.

1.2 Background of Study

The emergence of e-business start-ups is a clear indication of the advent of the Entrepreneurship 4.0 era. The combination of technological progress, globalization, and societal changes has brought about a new era characterized by rapid and constant change. This is often seen as a challenge to establish corporate practices and poses a risk to traditional business entities (Verhoef et al., 2021; Danarahmanto, 2020; Lalkaka, 2001; Lubis, 2019; Walrave et al., 2018; Wiesböck & Hess, 2020).

Start-ups have the capacity to improve market dynamics and significantly contribute to economic growth through the creation and development of new markets (Choi et al., 2021a). Therefore, it is expected that e-business start-ups will have organizational agility. Management actions must be in accordance with the set business objectives to be effective. The leadership, as the main driving force, must guarantee that its members possess the necessary skills to carry out all activities in alignment with these mutually agreed objectives (Al Mamun et al., 2018).

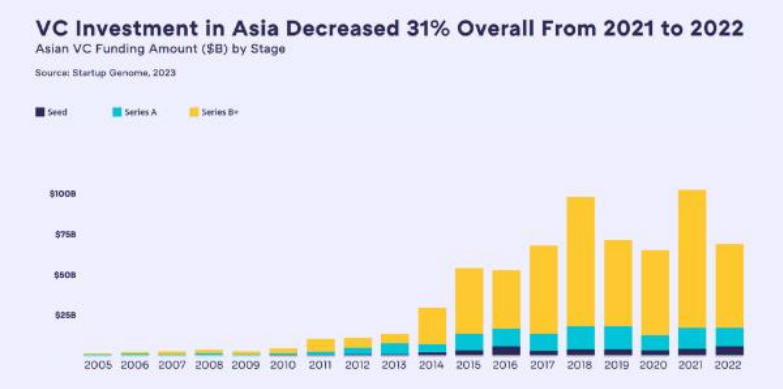


Figure 1.1 Venture Capital Investment in Asia Decreased by 31% 2021-2022. Source: Global start-ups ecosystem report 2023

Figure 1.1 illustrates a wave trend in the number of start-up ecosystems that achieved funding in Seed until Series B level. According to the Startupgenome study, the investment in Asia's venture capital sector has witnessed a significant growth of 62% between 2020 and 2021. Additionally, the volume of funding deals for early-stage ventures has climbed up to 69% during the same period of time but unfortunately dropped down to 31% between 2021and 2022 (Startup Genome, 2023). It is anticipated that in the upcoming year, this figure would persistently rise due to the rapid expansion of the digital ecosystem in numerous countries worldwide, though they might be facing a new problem if the startups are obstructed to get funding. This ecosystem undergoes

a regular measurement and its progress is monitored based on eight performance-related success factors. The factors comprise of ecosystem value, exit count, start-up success rate (with a higher proportion of start-ups), funding accessibility, funding activity quality and level, presence of prominent global companies, local influence, and commercialization of intellectual property (IP), which entails transforming an idea or invention into a marketable product. The first success of an e-business start-up is contingent upon the allocation of Series A, Series B, and Series C funding rounds. In the later stage, success is gauged by the existence of start-ups that have achieved a valuation of at least one billion dollars and the rate at which they go public or exit through alternative means.

The Global Start-up Ecosystem Report, 2020 revealed that start-up ecosystems in Southeast Asia are relatively nascent in comparison to the more developed ecosystems in China and India, which have undergone significant growth over the past five years. However, numerous start-ups in Southeast Asia are progressing swiftly and are expected to advance further in the coming years through consolidation. The Asia-Pacific area contains 30% of the world's top ecosystems.

2019 Challenger Ecosystem	Country	Continent	2020 Ranking
Tokyo	Japan	Asia-Pacific	#15, Top Global Startup Ecosystems
Seoul	Korea	Asia-Pacific	#20, Top Global Startup Ecosystems
Shenzhen	China	Asia-Pacific	#22, Top Global Startup Ecosystems
Hangzhou	China	Asia-Pacific	#28, Top Global Startup Ecosystems
Sao Paulo	Brazil	South America	#30, Top Global Startup Ecosystems
Melbourne	Australia	Asia-Pacific	Top 30 Global Startup Ecosystem, Runner-Up
Montreal	Canada	North America	Top 30 Global Startup Ecosystem, Runner-Up
Mumbai	India	Asia-Pacific	#1 Emerging Global Ecosystem
Jakarta	Indonesia	Asia-Pacific	#2 Emerging Global Ecosystem
Greater Helsinki	Finland	Europe	#4 Emerging Global Ecosystem

Figure 1.2 Challenger Ecosystems 2019
Source: Global Start-up Ecosystems Report 2020

Figure 1.2 elucidates the 2019 Global Start-up Ecosystem Report, which forecasts the emergence of a minimum of 30 global hubs for regional entrepreneurship in major cities worldwide. These hubs will house a significant number of start-ups with the potential to rapidly scale into large enterprises. Jakarta, as the representative of Southeast Asia, is anticipated to flourish as a conducive environment for the emergence and advancement of new start-ups. It is projected to be ranked in the top 30 global ecosystems, exerting significant effect on the economy of Southeast Asia. The digital ecosystem in Jakarta, Indonesia currently holds the top position in terms of ecosystem value, which amounts to 26.3 billion dollars. It has also received the highest amount of money, with a total of 845.9 million dollars in the early-stage funding between 2017 and 2018.

Table 1.1 Start-ups in ASEAN Countries 2021

Country	Total Start-ups	
	https://www.techinasia.com	https://www.startupranking.com
Indonesia	7.703	2256
Singapore	6.819	1029
Vietnam	1.985	182
Malaysia	1.924	281
Philippines	825	288
Thailand	796	134
Myanmar	141	48
Cambodia	68	7
Brunei	20	6
Laos	2	2

Source: Processed by the author, (2021)

Table 1.1 shows the existence of e-business start-ups in ASEAN countries. Based on the data from Techinasia (2021) and Startupranking (2021) the number of start-ups in ASEAN countries is growing well. Despite displaying varying figures, two established data sources, Tech in Asia and Start-up Ranking, exhibit commonalities in the progression of start-up numbers. Indonesia holds the top position in terms of the number of start-ups among other ASEAN countries. Following the country there are Singapore, Vietnam and Malaysia and the Philippines who have contributed a fairly large number of start-ups.

Hasan (2021) discussed the categorization of start-ups in Indonesia, which may be classified into three primary categories: game start-ups, educational start-ups, and trade start-ups. The distribution of start-up e-business industries is based on the data from Techinasia (2021). The data is divided into various fields, with professional services, e-commerce, media and ad-Tech being the dominant types of e-businesses. Additionally, there are e-business start-ups in the fields of lifestyle design, fintech, and others. Please refer to Figure 1.3 below for a graphical representation:

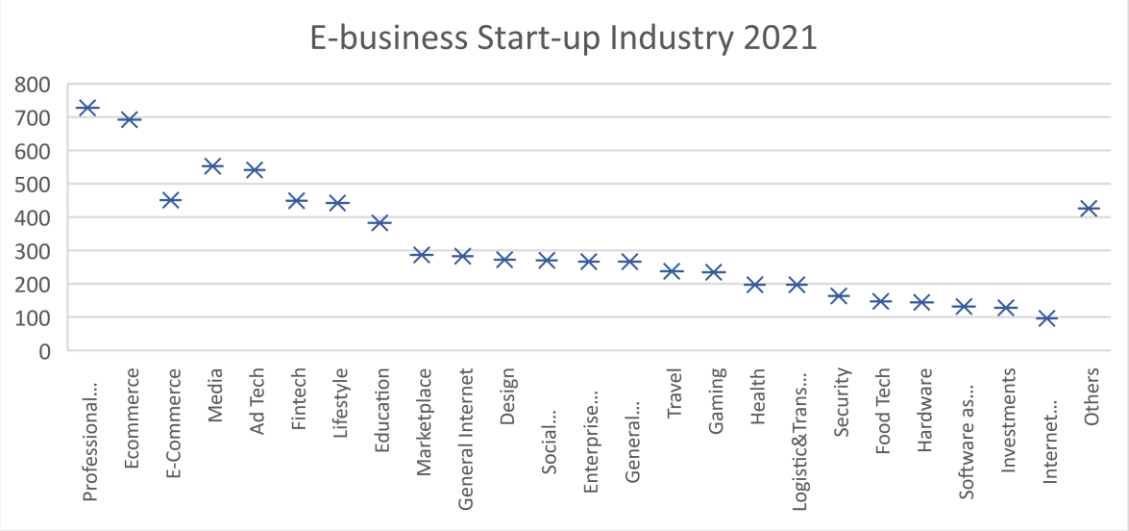


Figure 1.3 E-business start-up industry in Indonesia 2021

Source: Techinasia (2021)

According to Techinasia data, Figure 1.3 illustrates the many categories of e-business start-ups that are currently active in Indonesia as of 2021. Professional service and e-commerce e-business start-ups have the highest ranking, with over 1,500 enterprises. The objective of this study is to analyse several categories of e-business start-ups in order to gain a thorough comprehension of the variables being investigated and their correlation with the expansion of e-business start-ups in Indonesia.

Funding serves as a manifestation of investors' faith in the success and prospective expansion of e-business start-ups. Securing finance for e-commerce start-ups will undeniably accelerate business expansion and market growth. Investors assess the success and potential expansion of e-business start-ups by considering various factors. Internal variables include factors such as organizational leadership, peak performance, efficient team communication, and strong organizational commitment. However, external factors are commonly interconnected with consumer satisfaction and relationships with other stakeholders (Guo et al., 2020a; Leendertse et al., 2021). Unfortunately, there is no discernible relationship between the number of noteworthy e-business start-ups and the amount of funding they received Table 1.2 presents the proportion of newly established companies that obtained financial support in the year 2020.

Table 1.2 Percentage of Start-ups Funded in 2020

Stages	Indonesia	Singapore	Vietnam	Malaysia	Philipines	Thailand
Seed	411	903	160	186	107	108
Series A	173	359	49	48	28	46
M&A	100	145	31	43	22	30
Series B	68	136	14	19	7	14
Bridge	65	158	11	25	11	12
Pre-Series A	62	108	19	11	7	14
Strategic Investment	37	55	16	14	7	1
Grant	29	58	3	20	6	4
Series C	26	55	7	5	1	3
Early Stage	19	58	12	3	6	5
Series D	8	25	3	2	0	1
IPO	7	7	1	4	2	0
Series E	5	11	0	1	0	1
Series F, G & H	6	0	0	0	0	0
Debt	4	28	4	3	2	1
ICO	1	28	0	0	0	1
Product Crowdfunding	2	19	1	10	1	3
Late Stage	4	16	1	1	1	2
Unspecified Stage/Other	6	32	0	10	7	9
Total Funded	1033	2201	332	405	215	255
Total Startup Counted	7.703	6.819	1.985	1.924	825	796
%tage funded	13%	32%	17%	21%	26%	32%

Source: Processed by authors based on data from Techinasia accessed August 2021.

The data presented in Table 1.2 reveals that the percentage of start-ups that secured funding is relatively low, dropping below 15%. Singapore, having the second highest number of start-ups after Indonesia, secured the biggest amount of money, demonstrating its merit as the 4th leading global ecosystem in the Asia-Pacific region and the top-ranking country in ASEAN. Akkaya (2019) stated that a significant majority of start-ups experience failure, particularly during the initial phases. These companies experienced a significant rate of failure. Less than 33% of fledgling enterprises are able to endure the difficulties. The absence of sufficient financial resources, limited understanding of business principles and technology, and challenges in management have ultimately resulted in the difficulties faced by start-ups (Akkaya, 2019).

1.2.1 E-Business Start-Ups in Indonesia: An Overview

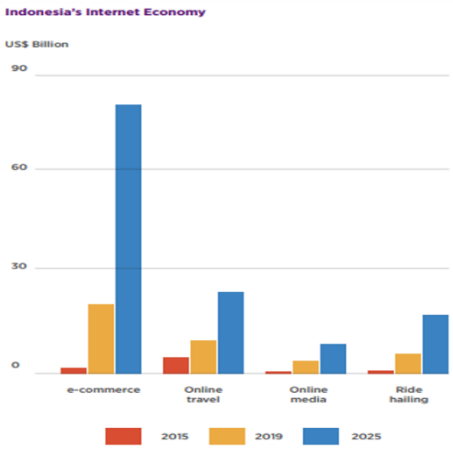
The primary goal of the 2020-2024 policy direction is to promote the Sustainable Development Goals (SDG) defined by the Association of Southeast Asian Nations (ASEAN). A crucial aspect of this strategy is the adoption of Industry 4.0. (Bappenas, 2019). The widespread adoption and effective implementation of technology in all sectors is expected to stimulate economic vitality in Indonesia, resulting in national development and progress. Aligned with the Indonesian government's 2019 SDG Indonesia Roadmap Economic Development Pillar, Indonesia's SDG policy in 2030 which focuses on 8 goals, which aims to enhance decent work and economic growth by improving the skills of the workforce to foster high-quality and competitive human resources. To improve the effectiveness of utilizing knowledge, one should strategically analyse future skill needs, utilize expertise for innovation, and promote technology-based and social entrepreneurship. One of the goals of implementing the 2025-2030 policy direction is to enhance the workforce by increasing the number of productive employees. This objective will be accomplished by strategically implementing creativity and innovation to generate formal employment prospects (Bappenas, 2019).

The government has been undertaking initiatives to foster the establishment of 1000 start-ups in Indonesia, commencing in 2016. The government has given significant attention to the growth of the digital industry due to its perceived potential to have a substantial impact on 57.8% of Indonesia's Gross Domestic Product (GDP) (Rahman et al., 2016). The anticipated e-commerce target value for 2020 is forecasted to reach 130 billion rupiah, leading to a 9% growth in Indonesia's GDP. The National 1000 e-business start-ups project was initiated in 10 significant Indonesian cities,

namely DKI Jakarta, Bandung, Semarang, Yogyakarta, Malang, Surabaya, Medan, Bali, Makassar, and Pontianak.

The innovation centres in the 10 cities were built with the purpose of facilitating the emergence of 1000 e-business start-up enterprises in Indonesia. Hence, the government places significant emphasis on the presence of e-business start-ups in Indonesia, as it is projected that these ventures will bolster the nation's economy and generate millions of employment prospects, with the aim of alleviating poverty in the country. The graph below depicts the internet economy in Indonesia:

Figure 1.4 Indonesia's Internet Economy



Source: Digital Competitiveness Index 2020 (IMD World Digital, 2020)

Figure 1.4 indicates that a study conducted by East Ventures Indonesia has revealed a positive trend in the Internet Economy movement in Indonesia. The graph predicts a substantial increase in the growth of e-business start-ups from 2019 to 2025 (Report, 2020). In 2019, e-commerce enterprises have overwhelmingly dominated the e-business market in Indonesia, with online travel and ride-hailing sectors are following closely behind.

According to the data mapping conducted by the Indonesian Digital Creative Industry Society (MIKTI) in 2018, the condition is as showed in Table 1.3 below:

Table 1.3 Indonesia E-Business Start-ups Data 2018

Domicile Area	Year Establish				Total Start-up	%
	<2007	2007-2012	2013-2018	Unknown		
Jabodetabek	23	113	304	82	522	53%
Central Java	0	3	21	6	30	3%
Special Region of Yogyakarta	6	10	23	15	54	5%
West Java	2	11	26	5	44	4%
East Java	3	23	58	29	113	11%
Bali & West Nusa Tenggara	1	1	19	11	32	3%
Kalimantan/Borneo Island	0	2	22	0	24	2%
Sulawesi	0	0	33	1	34	3%
Sumatra	0	8	91	16	115	12%
Unknown Domicile					24	2%
Total	35	171	597	165	992	100%

Source: Author's work (Zaky et al., 2018)

Table 1.3 highlights the intriguing information. Over half (53%) of e-business start-ups are located in Jakarta and its surrounding areas. The digital ecosystem thrives in this location due to Jakarta's status as the capital city, which boasts sufficient infrastructure and close proximity to government offices. Additionally, the advanced mobility and technological accessibility of the local community also create a favourable market for the growth and development of e-business start-ups. The chart indicates that from 2013 to 2018 was a flourishing era for e-business start-ups in Indonesia, with a notable surge of 597 new ventures (Zaky et al., 2018). According to Siaran Pers No. 257/HM/KOMINFO/07/2021, Setu (2021) reported that Indonesia is now seeing the most rapid growth in its digital economy and Industry 4.0 among other Southeast Asian countries. With a total of 2,193 e-business

start-ups, Indonesia is ranked as the fifth largest in the world. Indonesia is home to five unicorns and one decacorn.

According to the data provided by Rudiantara, the Minister of Communication and Informatics in 2019, only 5% of start-ups were able to endure the obstacles, while the remaining 95% experienced failure. Conducting study on this matter is crucial due to the potential of digital commerce to boost the Indonesian economy and create employment opportunities. Ultimately, it is projected to contribute to poverty alleviation in Indonesia. According to the data from Statistic Indonesia (2018), there were 55,903 workers employed in the digital start-up industry. This figure represents a significant proportion, accounting for 7.9% of Indonesia's total population, particularly among the productive age group actively seeking employment (Zaky et al., 2018).

The onset of the COVID-19 pandemic in early 2020 posed challenges in accurately forecasting the progress of this e-businesses. There has been a shift in the behaviour of individuals who prefer to make purchases online (Nguyen et al., 2020; Shehata & Montash, 2019). This change is attributed to the significant number of unemployed individuals (Suryahadi et al., 2020) who are now venturing into opening online stores on various prominent Indonesian marketplaces. Additionally, government-imposed social restrictions (Prasetyo & Kistanti, 2020; Suryahadi et al., 2020) have further contributed to this trend. As a result, the tourism and online travel industry has experienced a decline in activity, leading to many businesses in both sectors shutting down and liquidating their assets. On the other hand, transportation service businesses have found more success in delivering goods rather than transporting people. The financial technology industry is seeing tremendous growth because of the increasing need for remote transactions and the community's reluctance

to handle real currency, leading to a shift towards electronic money (Immanuel & Dewi, 2020). The presence of government assistance is anticipated to stimulate the enthusiasm of young entrepreneurs who possess proficient technology skills to actively contribute to the Indonesian economy by establishing numerous e-business start-ups.

1.2.2 The Importance of Increasing Performance among E-Business Start-ups in Indonesia

Enhancing the success of e-business startups in Indonesia is imperative for multiple reasons. Just like the start-ups in any nation, enhancing performance is crucial for achieving continuous development, competitiveness, and enduring success. Enhancing performance is crucial for e-business companies in Indonesia due to the highly competitive e-business scene in the country, where several businesses are competing for attention. Enhanced performance can differentiate a start-up in the market, entice a larger customer base, and secure a competitive advantage (Tigor et al., 2019; Zaky et al., 2018).

Enhancements in performance have a direct influence on the overall satisfaction of customers. Enhanced website loading speeds, streamlined order processing, and dependable services all will add to a favourable customers' experience, promoting consumer happiness and encouraging loyalty. Websites and services that are executed at a high level of quality will manage to establish confidence and credibility among the users. In the realm of e-commerce, where the security of transactions and data is of utmost importance, having a dependable and efficient platform is crucial for establishing and preserving clients' trust. As electronic firms

expand, they must possess the capability to increase the size and scope of their activities. Enhancing performance guarantees that the organization can manage augmented user traffic, transactions, and data while maintaining optimal speed and efficiency. Search engines tend to prioritize websites with superior performance in the realm of e-business startups. Enhanced search engine rankings are facilitated by faster-loading pages and responsive design, hence facilitating the online discovery of the e-business by potential customers. Enhancements in performance can result in reductions in costs. Improving operational efficiency through optimization process, website performance optimization, and overall streamlining is crucial for businesses with limited resources, as it helps to reduce costs and enhance productivity (Saputra et al., n.d.).

The technological environment is ever changing. E-commerce firms that allocate resources to enhance their performance are more strategically positioned to respond to emerging technology, trends, and evolving consumer behaviours. Indonesia boasts a substantial population of mobile users. It is essential to optimize e-business platforms for mobile devices. Enhanced performance on mobile platforms increases accessibility and expands the client base. Highly efficient e-commerce companies can allocate resources more effectively towards implementing strong cybersecurity protocols, thereby safeguarding the confidentiality and integrity of clients' information. Adhering to data privacy standards is becoming more crucial and can provide a competitive edge. Enhancing performance can bolster investors' confidence. Investors are more inclined to support firms that exhibit a dedication to efficiency, scalability, and customers' happiness, all of which are associated with enhanced performance (Honjo & Nakamura, 2020; Nanda & Rhodes-Kropf, 2013).

To summarize, enhancing performance is a complex approach that plays a crucial role in a start-ups' ultimate triumph in the dynamic and competitive e-business environment in Indonesia. It has an effect on customers' satisfaction, market competitiveness, operational efficiency, and the capacity to adjust to changing technological trends. The Indonesia Digital Creative Industry Community (2018) has identified six stages of start-up growth based on valuation.

Table 1.4 Six stages of start-up growth

Stage	Criteria
Hectocorn	Attaining a valuation of USD $100 billion.
Decacorn	Attaining a valuation of USD $ 10 billion
Unicorn	Attaining a valuation of USD $ 1 billion
Centaurs	Attaining a valuation of USD $ 100 million
Ponies	Attaining a valuation of USD $ 10 million
Cockroach	The earliest start-up stage

Source: Indonesia Digital Creative Industry Community 2018 (Susilo, 2020)

From Table 1.4, it appears that the level of the businesses is created in such a way as to categorize and facilitate the development, training and coaching conducted based on the level the organization. This stage is also a target for e-business start-ups to continue to grow their businesses in order to level up and to have more impact to many people (Susilo, 2020).

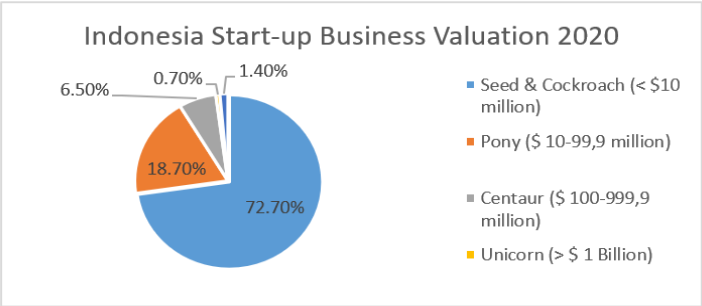


Figure 1.5 Indonesia Start-ups Business Valuation 2020
Source: Survey katadata insight (aptika.kominfo.go.id, 2020)

Figure 1.5 indicates that the valuation of start-up businesses in Indonesia is currently inadequate. Currently, 72.4% is operating at a basic level and requires assistance from multiple stakeholders in order to advance to a more influential position, comparable to a pony. This progression would significantly enhance the economic development in Indonesia. During the period of expansion, technology start-ups impose more stringent requirements in comparison to non-tech start-ups. If the technology fails to progress within a span of 3 years, both the efficacy of the utilized technology and the benefits provided to the users may diminish or become obsolete. Hence, it is imperative to always introduce innovations in order to enhance client involvement and ensure the ongoing success of the organization.

In addition to its significance in the Indonesian economy and its potential to alleviate poverty, the development of e-business start-ups in Indonesia faces also other difficulties. According to Indrawati et al. (2020), a new start-up company in Indonesia has five primary challenges, which are ranked as follows: financing technical innovation, obtaining government assistance, finding suitable business partners, ensuring high-quality human resources, and navigating economic conditions. The 2018 Indonesian start-ups database mapping data supplied by the Ministry of

Communication and Information of the Republic of Indonesia was enhanced by these 5 impediments. The report presented data from a survey of 992 e-business start-ups in 9 major Indonesian provinces. It revealed that 38.82% of the respondents have identified capital as their primary challenge, followed by 29.41% who cited human resources, 15% who mentioned facilities, 8.82% who pointed to regulations and laws, and 7.94% who highlighted market-related issues (Lumpkin et al., 2011)(Zaky et al., 2018).

E-business start-ups in Indonesia are vital in assisting non-technical small and medium enterprises (SMEs) by facilitating their transition into the digital domain, especially during a pandemic. E-commerce start-ups are expected to offer assistance to individuals who have lost their jobs due to the pandemic, helping them to build and maintain their own enterprises for survival (Suryahadi et al., 2020). The statistics and conclusions emphasize the importance and fascination of researching e-business start-ups in Indonesia. This research is highly helpful for guiding their future advancement in the upcoming decade, in keeping with the objectives stated in the Sustainable Development Goals (SDG) for 2030. In the next session explanation about the existing unicorn that was built by Indonesian e-business start-ups founders are given. The business have given many contributions to support other businesses (most of the businesses are based on non-digital or retailed business and/or the person who offers their service in domestic transportation job)

Gojek and Tokopedia are prominent instances of how e-commerce startups can significantly contribute to the rapid advancement of a country's economy. The Gojek start-up e-business application, established in 2015 by Nadiem Makarim and his colleagues, is an Indonesian on-demand multi-service platform. It has effectively created employment opportunities for numerous online-based motorcycle and rental

car drivers, as well as workers with various other skills such as cleaning service. Additionally, it has facilitated the online ordering and delivery of food and beverages for thousands of small and medium business merchants. Another instance of success is Tokopedia, a technology-driven platform founded in 2009 by William Tanuwijaya. Its objective is to promote digital economic equality through the presence of e-commerce. Tokopedia's presence in Indonesia has provided assistance to several sectors of MSMEs. The sales figures are experiencing an upward trend, accompanied by a simultaneous rise in the efficiency and satisfaction levels of online shoppers, particularly in the midst of the COVID-19 pandemic. The presence of Gojek and Tokopedia as trailblazers in digital transactions has greatly benefited micro, small, and medium enterprises (MSMEs) and those impacted by unemployment, providing them with an alternative means of generating cash for their survival.

In addition to the essential presence of e-business start-ups in Indonesia, the availability of facilities and internet network systems owned by Indonesians remains severely restricted. The internet speed in this country is the slowest compared to the other four ASEAN countries, which poses challenges for e-businesses that are relying on online technology. Obstacles to digital business development in Indonesia include cultural factors, local habits rooted in physical meetings, the presence of traditional markets, people's mindsets emphasizing physical contact, and a business system based on community-held beliefs. Essentially, it is crucial to promptly address the challenges faced by e-business start-ups, as they require collaborative efforts from various stakeholders intertwined with e-businesses. Failure to do so may pose a significant risk to the long-term viability and growth of these start-ups. The capacity of e-businesses to adjust to diverse changes in dynamic and uncertain circumstances, establish networks to mitigate existing challenges, innovate within their limitations, and receive

comprehensive government support can undeniably enhance the performance of e-businesses in Indonesia.

1.3 Problem Statement

This research primarily aims to optimize the performance of e-business start-ups, which significantly contributes to the economic growth of Indonesia. These start-ups encounter diverse constraints and obstacles that require resolution. (Indrawati et al., 2020; Prasanna et al., 2019). The government, with its regulatory authority and capacity, plays a crucial role in overseeing, supporting, and ensuring the long-term viability of start-ups. However, it has been unable to effectively carry out this duty, as highlighted by Panjaitan et al. (2020). This study specifically addresses the following research problems, low investment in Indonesian e-Business Startups, lack of innovation capabilities to improve start-ups performance in Indonesian Startup, lack of dynamic capability to face uncertain and unpredictable condition, lack of entrepreneurial orientation among start-ups owners and lack of government support to increase the performance of e-business start-ups company. The more complete and detailed description about those problems can be found in the following explanation:

1.3.1 Low investment in Indonesian E-business Start-ups

E-business start-ups in Indonesia have several problems and challenges in maintaining their performance and sustainability in the current global business competition. The existence of sufficient financial capital has become one of the determinants of the success of technology-based businesses, which is because the assets and investments are needed to create applications that are on target and can answer the needs of users which will require trials for many times until they can be

accepted by the market (Davila et al., 2003; R. M. Ferreira & Pereira, 2021; Hain & Jurowetzki, 2018; Honjo & Nakamura, 2020; Moranta & Donati, 2020).

Digitalization echoed by the government and policies to support the existence of e-business start-ups seems to have not come to completion. From the graph which showed a trend of decreasing number of new start-ups every year and the majority of the start-ups, 72% are mostly at the seed / cockroach level which is the evidence of the limitations of start-ups to grow their business. Data from Menkominfo (Minister of Communication and Informatics, 2019), Rudiantara, showed that only 5% of the start-ups survived, 95% others failed. So, based on the explanation above, there are problems related to capital or funding as an obstacle faced by the majority of the Indonesian start-up companies. If the e-business start-ups are able to improve its performance and grow confidence among the investors, it is expected that the percentage of the number of e-business start-ups that will receive funding and nominal funding will be even greater (Cánovas-Saiz et al., 2020; Hellmann & Thiele, 2019; Reuvid, n.d.; van Balen et al., 2019).

1.3.2 Lack of innovation capability in improving start-up performance in Indonesian Start-up

Innovation is the key to business success. In the digital industry, innovation capability plays an important role because all the efforts are deployed to create new and beneficial value for its users, while technology and demand are constantly changing. The lack of innovation in e-business start-ups has an impact on the sustainability of the businesses. In his 2019 statement, the Minister of Communication and Informatics; Rudiantara, revealed that a mere 5% of start-ups were able to endure, while the remaining 95% met with failure. A start-up operating in a high-tech industry is expected to outperform a start-up in a non-high-tech industry. Similarly, a start-up

with advanced technological capabilities is expected to outperform a start-up with relatively lower technological capabilities.

Indonesia with the background of a long-colonized country does not have a sense of creativity so the ability to innovate is still relatively low. The research and development agency of the Ministry of Home Affairs (2019) in its study in major cities in Indonesia (Bandung, Denpasar, Pontianak and Surabaya) stated that the creativity of Indonesian teenagers on the internet is still low. After evaluating eight dimensions of digital literacy, including functional skills, creativity, collaboration, communication, information retrieval and selection, critical thinking and evaluation, cultural and social understanding, and e-safety, it is determined that creativity is ranked as the lowest. Nakao (2019) in his study stated that innovation as a community product. Organizations engaged dynamically in the field of technology-based creative industries and intensive knowledge sectors emphasized on the importance of innovation in entrepreneurship (Henrique & Nakao, 2019).

1.3.3 Lack of dynamic capabilities in improving start-up performance in Indonesian E-business Start-up

Dynamic capabilities refer to an organization's capacity to effectively adapt and respond to the changing conditions and challenges presented by its internal and external environment (D. J. Teece, 2007; D. Teece & Pisano, n.d.). The company's agility in responding to environmental volatility will enhance its competitive advantage in the sector. Indonesia is a country that has seen significant colonization throughout its history and is distinguished by a wide array of ethnic cultures. The presence of businesses in Indonesia is influenced by both good and negative factors in the overall environment. Indonesia is a distinctive nation that possesses a range of local values while also embracing a unified national value. It demonstrates a commendable

level of receptiveness towards cultural diversity, while simultaneously making efforts to safeguard its own cultural heritage. The emergence of e-business start-ups in Indonesia, which have been established and grown in recent decades, is the result of a thorough analysis of the values, requirements, and perspectives of diverse users from different ethnics and cultural backgrounds. Indonesia poses some significant obstacles for e-business start-ups to expand. The business offered to the community must be a novel entrepreneurial concept that addresses the diverse challenges within the community, with the aim of providing improved solutions for a higher quality of life.

1.3.4 Lack of entrepreneurial orientation among start-up owners in Indonesia

Herlinawati (2019) in her study about SMEs in West Java Indonesia showed that entrepreneurial orientation in all dimensions tend to be low so as the business performance. Entrepreneurial orientation positively influences business performance (Machmud et al., 2019). Pratono (2018) confirmed the positive impact of risk-taking behaviour on performance but also identified that the impact of risk-taking behaviour is more effective at the low information technological turbulence than at the higher one in affecting firms' performance (Pratono, 2018). In Indonesia there are not many educational institutions which are teaching and supporting the development of entrepreneurial orientation. Education in Indonesia still focuses on forming the characters to become workers or employees who will occupy various positions in a company. Kementerian Koperasi dan Usaha Mikro in Indonesia said that the number of entrepreneurs in Indonesia is only about 1.65 percent of the current population. Less than Singapore at 7%, Malaysia at 5%, and Thailand at 4%.

1.3.5 In effectiveness and lack of government support among start-ups owners in Indonesia

The insufficient government funding is further apparent with the constraints on internet speed and network that is necessary for system growth. The community's preparedness to utilize digital services offered by start-up companies remains inadequate, despite most Indonesians are falling within the technologically literate age group. However, due to the diversity of value systems, beliefs, and geographical factors, it is currently unfeasible for e-business start-ups to reach the entire population of Indonesia. Empirical evidence demonstrates that over 53% of e-business start-ups in the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, and Bekasi) region are flourishing due to the presence of well-developed infrastructure that can sufficiently support their expansion.

In start-up companies, the presence of scarce resources, minimal assets, and the ongoing process of organizational development may hinder stability. The company's attributes are still in their early stages, with limited information and a lack of comprehensive knowledge, which poses challenges for further growth. The presence of actors and events that are contributing to the establishment and development of e-business start-ups in Indonesia, such as business incubators, co-working space providers, government-formed learning functions in the ministry, angel investors, and collaboration partners, is deemed crucial for the expansion of start-ups in Indonesia. However, the capacity of start-ups to establish connections with external entities in order to get the supplementary resources that they require is insufficient. Start-ups also faced significant challenges in making the necessary advancements to enhance their valuation due to resource constraints (Amelia et al., 2021; Hughes et al., 2020).

The government of Indonesia, through Presidential Decree No. 27 of 2013 on the Development of Entrepreneurial Incubator seeks to increase national competitiveness to develop new entrepreneurs who are resilient, creative, and professional. The role of business incubators and accelerators has become a bridge for the start-up networking process with various parties supporting the success and improvement of start-up performance. Business incubators are effective vehicles to develop entrepreneurial spirit, ability, networking, and insight (Amelia et al., 2021; Famiola & Hartati, 2018; Hughes et al., 2020; Mungila Hillemane, 2020; Yasin et al., 2021). The presence of the Indonesian Business Incubator Association (AIBI) in Indonesia plays a crucial role in fostering collaboration among all business incubator organizations in the country. This collaboration aims to enhance their capacity in facilitating the establishment of new businesses and fostering the growth of entrepreneurs and small and medium enterprises (SMEs). Ultimately, this supports the advancement and stability of the national economy. In addition, it is crucial to establish connections with stakeholders, both domestically and globally, in order to foster networks. Regrettably, the current number of incubators in Indonesia fails to adequately fulfil their intended purpose and role as the catalysts for innovation, as seen by the limited scope of activities and networking that they facilitate.

Given on how important start-ups development in Indonesia, incubators are the institutions that can help business development with facilitation and services. But the development of business incubators in Indonesia is far behind other countries such as the European Union (1,100), Canada (100), and China (450) (Bank Indonesia, 2016). According to data from the Indonesian Business Incubator Association (2014), there are 83 business incubators in Indonesia that are included in AIBI membership. Business incubators in the field of ICT are still lacking in Indonesia, but there are some

incubators which have existed and are able to grow high quality start-ups (Joint Research Pendahuluan et al., n.d.).

Besides the business incubators, entrepreneurs in the field of ICT have also developed their networking through personal networking by relying on the acquaintances or channels from their founders. Previous studies have demonstrated the importance of a leader's ability and behaviour in directing and deploying his or her ability to drive business organizations to have competitive advantage (Dominiece-Diasa et al., 2018; H. E. Lin & McDonough, 2011; Phangestu et al., 2020; Rusliati et al., 2020). The ability of a leader to find the right channel and to work with others will determine the success of the business he leads (Kurucz et al., 2017; Phangestu et al., 2020; Visvanathan et al., 2018; Widyani et al., 2017).

Given the specific issues and gaps in existing knowledge, this study holds great importance in enhancing the country's economy. This is because digital business is more conducive to acceleration and prioritizes efficiency in its operational procedures. E-business startups facilitate the expansion of the market and enhance client involvement for small and medium entrepreneurs.

1.4 Objectives of the Study

The objective of this study is to analyse the performance of e-business start-ups in Indonesia by assessing the influence of their ability to innovate in terms of products and processes, their marketing capabilities, dynamic capacities, as well as the role of the government support and entrepreneurial orientation. With that in mind, the aims of this study are as follows: