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FIRM SURVIVAL IN ENVIRONMENTAL TURBULENCE: DIGITAL STARTUP RESPONSE TO COVID-19

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ABSTRACT:

The Covid-19 outbreak has resulted in changes and uncertainties in a dynamic business environment, which is indicated as Environmental Turbulence. The situation has an impact on the current performance of SMEs, including in the Greater Jakarta Area, Indonesia, where the startup population reaches more than 300 businesses. The purpose of this study is to investigate the indirect impact of Entrepreneurial Orientation (EO) as an antecedent and also the direct impact of Market Orientation (MO) and Digital Platform Capability (DPC) moderated by Environmental Turbulence on Firm survival which is one type of performance. No performance can be expected in this situation except for survival. Previous researches have shown that EO and MO can have a significant impact on performance in SMEs' context. We try to combine EO and MO with DPC as one strategy that also enables Startup to survive in environmental turbulence. Regarding the objectives and research model, this research is a conceptual paper which the researcher will be proposing and will empirically validate the survey data for 120 Digital Startup in the Greater Jakarta Area, Indonesia with the SEM PLS method. This research is trying to give the literature contribution on how to digital startup can survive in environmental turbulence by analyzing the influence of EO, MO, and DPC on firm survival.

Keywords: *Entrepreneurial Orientation, Market Orientation, Digital Platform Capability, Firm Survival, Environmental Turbulence.*

Introduction

Covid-19 pandemic has put tremendous pressure on the national economy in most countries, including Indonesia. It cannot be denied that Covid-19 had dramatically changed the political and economic environment (Kuckertz et al., 2020). This caused change and uncertainty in every aspect of life. In terms of business, the patterns of consumers' needs and desires have changed a lot - and conditions for market competition have become difficult to predict as well. Moreover, the use of technology had undergone many changes; which mainly adjusting the market needs in each industry. These impacts indicate

environmental turbulence, which affects the dynamics of the business environment.

Indirectly, environmental turbulence had force companies to see new opportunities, especially in developing new products and services which enable them to explore (as well as expand) their consumer networks (Kohli & Jaworski, 1993), mainly in the use of technology in SMEs entrepreneurial context (Chan et al., 2018; Hassan et al., 2018; Li et al., 2016). For digital startup doers, maintaining their business during the Covid-19 pandemic is certainly a challenge.

In Indonesia, Katadata Insight Center (2020), which is one of the leading online media and study companies in the field of economics and business; had conducted a survey on 139 digital startup executives between May-June 2020. At the end of 2019, it was informed that there were 74.8% startups which were in good and very good condition. However, after the Covid-19 pandemic broke out in Indonesia, only 33% of them were in good and very good condition, and the other 42.5% were in bad condition (Katadata Insight Center, 2020). This is illustrated in Figure 1.

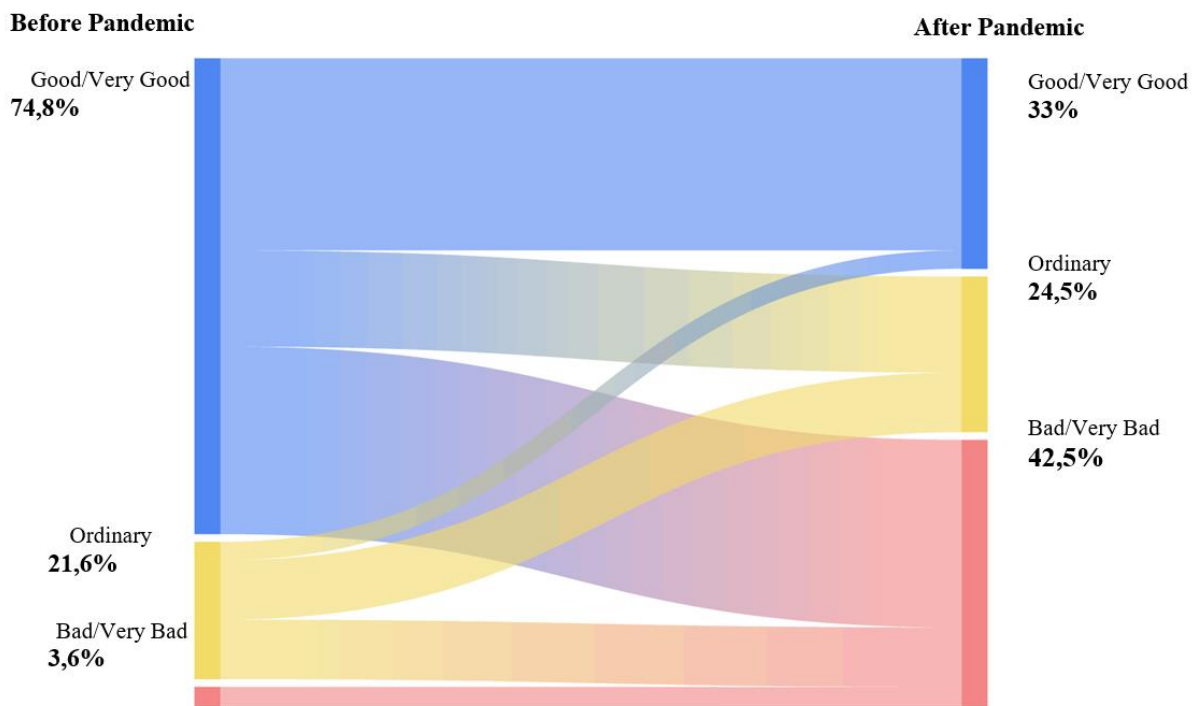


Figure 1. Graph of changes in digital startup conditions in Indonesia before and after the pandemic

(Source: <https://katadata.co.id/katadatainsightscenter> (Katadata Insight Center, 2020))

Due to this phenomenon, many SMEs and startups had ultimately decided not to prioritize their growth or profit. They only tried to at least survive and continue to run their business during this pandemic (Cunningham, 2017). In order to respond to the situation, the Entrepreneurial Orientation (EO) culture which promotes an attitude of innovativeness, proactiveness, and risk-taking should be able to encourage companies to make innovations and the right decisions in times of crisis. Moreover, the concept introduced by (Covin & Slevin, 1991) can also encourage Market Orientation (MO), which focuses on consumer and competitors' orientation, which can influence the company's business performance. Several

previous studies have also emphasized the importance of the role of MO and EO, as well as its implications for the firm performance during times of crisis (Beliaeva et al., 2018; Kottika et al., 2020). Furthermore, in responding to times of crisis and uncertain market competition, as well as the industrial era 4.0; many SMEs are utilizing digital platforms to improve business strategies - which can also produce performance (Li et al., 2016). Therefore, in this study, the researchers try to integrate the relationship pattern of EO, MO, Digital Platform Capability (DPC) to firm survival in facing environmental turbulence, which in this case includes Covid-19.

The conceptual hypothesis needs to be proven to be able to make further contributions to digital startup management so that it can survive the Covid-19 outbreak. Therefore, this study aims to analyze and validate 120 digital startups in the Greater Jakarta Area, Indonesia, by using the SEM PLS approach. To be more specific, the researchers will: 1) Examine the impact of Entrepreneurial Orientation (EO) on Market Orientation (MO) and Digital Platform Capability (DPC); 2) Examine the relationship between MO and DPC as a mediating variable; 3) Examine the impact of MO and DPC on Firm Survival as a business performance during times of crisis; and 4) Examine Environmental Turbulence as a moderator of the result of the relationship between MO and DPC on Firm Survival.

Literature Review & Conceptual Development

1.1. Entrepreneurial and Market Orientation

Entrepreneurial Orientation (EO) reflects the overall attitude of innovativeness and proactiveness of a company in capturing new opportunities (Knight & Cavusgil, 2004), as well as updating the current process (Knight et al., 2020). Apart from these two attitudes, EO also has another important dimension; which is risk-taking (Covin & Slevin, 1991; Zhou et al., 2010). Innovativeness represents a company's orientation that is open and supports new ideas, novelty, experiments, as well as creative processes that can create new products, services, or technological processes (Lumpkin & Dess, 1996). Pro-activeness refers to the search for new opportunities, introducing new products before the competition, and improvising or eliminating operations that are in a stagnant or declining cycle stage (Venkatraman, 1989). Meanwhile, risk-taking reflects the level of willingness in stakeholders to be able to utilize the firm resources when the decision has a high probability of failure. (Lumpkin & Dess, 1996).

Market Orientation (MO), according to Narver & Slater (1990); is an organizational culture that emphasizes customer and competitors' orientation, as well as inter-functional coordination. Customer and competitors' orientation both represent all activities in gathering information about customers and competitors in the target market. Meanwhile, inter-functional coordination prioritizes coordination between departments or sections (not just marketing departments) in processing and creating value from the collected information. Moreover, MO also promotes market intelligence related to current and future customer needs, the deployment of intelligence in each department, as well as the responsiveness of each individual organization (Kohli & Jaworski, 1990).

EO and MO have a fairly close relationship when viewed from previous studies, both as an antecedent (Choi & Williams, 2016; Knight et al., 2020; Knight & Cavusgil, 2004) and a strategic process (Beliaeva et al., 2018; Sahi et al., 2019). Several previous studies have proven and emphasized the importance of the role of MO and EO, as well as their implications for company performance during times of crisis (Beliaeva et al., 2018; Kottika et al., 2020). In times of crisis where entrepreneurial organizations are required to survive; EO proves that a more innovative, proactiveness, and more risk-taking attitude can significantly increase MO and provide positive performance (Kottika et al., 2020; Miles & Arnold, 1991). Therefore, in this case, the researchers believe that the support of EO to MO in the context of Digital Startup can also positively affect the strategy of a company.

H1. Entrepreneurial Orientation positively affects Market Orientation

1.2. Entrepreneurial Orientation and Digital Platform Capability

Digital Platform Capability (DPC) can be measured by a model that has been established by Rai & Tang (2010) and refined by Cenamor et al. (2019). DPC refers to digital information technology as a forum that supports information exchange activities, both with partners and consumers. The process which occurs in DPC is an effort to integrate digital platforms with the capabilities of SMEs in re-configuring platform resources through a modular design and standardized interfaces in applications and business processes (Cenamor et al., 2019; Rai & Tang, 2010).

Essentially, EO helps companies in orchestrating some of their capabilities which are relevant to be made as to their strategy (Kottika et al., 2020). This is strengthened by the argument that EO also stimulates the initiation of various organizational performances through enhancing internal capabilities, processes, and structures (Covin & Slevin, 1991). Acosta et al. (2018) have also proven that the internal capability strategy process supported by EO can positively affect business performances. In this context, the researchers try to analyze the development of internal capabilities through Digital Platform Capability (DPC) in Digital Startup. DPC enables companies to utilize both their internal and external resources for competitive advantage. With the stimulus from EO in the form of the principles of innovativeness, pro-activeness, and risk-taking; it should be able to encourage the integration and reconfiguration process in DPC.

H2. Entrepreneurial Orientation positively affects Digital Platform Capability

1.3. Market Orientation, Digital Platform Capability, and Firm Survival as Performance

Henderson & Venkatraman (1993) and Li et al. (2016) have argued that organizational performance is highly dependent on the structure and capabilities which support the successful realization of the strategy which has been decided. Therefore, in its effort to adapt, a company needs an alignment process between business strategy and digital platforms. In this process, DPC is trying to change the traditional business proposition pattern by offering technical elements in the form of hardware and software; where its features can be extended through complete modules, systems, standards, and organizational processes - whether with or without third parties (Reuver et al., 2017). On the other hand, the EO's boost to MO and internal capability, in the context of network capability, can significantly affect performance

(Acosta et al., 2018). Another thing is; when combined with openness to greater market potential opportunities, technological support will be able to drive accelerated growth (Renko et al., 2020). In this context, it is important to consider how is the relationship pattern between MO and technology-assisted influences which, in this case, focuses on DPC that in its process apply the principles of integration and reconfiguration.

In the context of its relationship pattern on performance, according to Kohli & Jaworski (1990); MO is an important strategy that can have an impact on business performance. Based on a strategic plan which refers to customer and competitors' intelligence, MO can be a mediating effect on performance. This has been proven by several studies where MO has a positive effect as a mediator on various performance measures; such as market sales, market growth, new product success, as well as profitability (Genc et al., 2019; Kottika et al., 2020; Naidoo, 2010). Therefore, it is also possible that MO can positively affect Firm Survival in times of crisis.

In the context of its relationship between DPC and firm survival, previous studies have explained that DPC has an indirect effect on performance (Cenamor et al., 2019). However, essentially, technology drivers can provide direct benefits to firm performance such as reducing customer search costs, facilitating product comparisons, reducing the complexity of decision tasks, and reducing business risk (Broekhuizen et al., 2019). It becomes interesting to examine when technology (in this case DPC), has a direct impact on performance; such as Firm Survival, in a digital start-up context.

H3. Market Orientation positively affects Digital Platform Capability
H4. Market Orientation positively affects Firm Survival
H5. Digital Platform Capability positively affects Firm Survival

1.4. The moderating role of Environmental Turbulence

Several previous studies have argued that external environmental factors are able to shape firm behavior (Hannan & Freeman, 1977; Volberda & van Bruggen, 1997). Environmental Turbulence is a phenomenon in which the environment is dynamic, developing, unpredictable, fluctuating; and is characterized by environmental change and instability (Volberda & van Bruggen, 1997). In the context of entrepreneurship, the environment has also become one of the factors which moderate business strategy on performance (Covin & Slevin, 1991; Gupta & Batra, 2016). Therefore, in this study, MO and DPC are assumed to be firm behavior; where both are able to have an impact on firm survival - which depends on the environmental turbulence moderation factor.

H6. Environmental Turbulence moderates Market Orientation - Firm Survival
H7. Environmental Turbulence moderates Digital Platform Capability - Firm Survival

Based on the literature review and the above hypotheses, the following research model was constructed

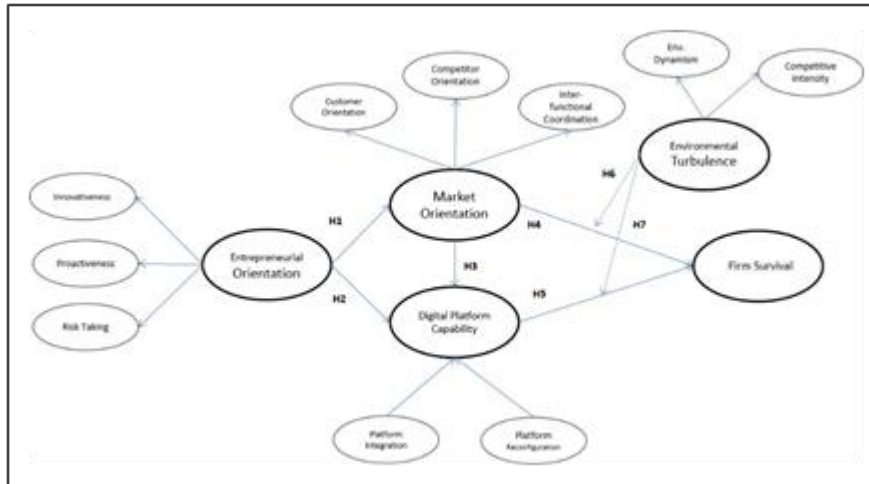


Figure 1. Research Framework

Research Method

1.5.Context and data collection

In 2018, the Indonesian Digital Creative Industry Community (*MIKTI*) and Indonesian Technopreneurs released data on the startup population in Indonesia, which amounted to 992 startups. This number is still dominated by the e-commerce sector (at 35.48%), fin-tech (at 5.34%), and gaming (at 5.54%); while the rest are engaged in other fields. In this study, the startups studied were only focused on the Greater Jakarta Area, which has a population of 304 startups. Therefore, in this study; the proposed sample size is 120.

In conducting this study, the researchers used a questionnaire collection method to obtain primary data. The questions contained in the questionnaire were adjusted to the indicators of the variables which had been determined in this study. The questionnaire used Google Form which, afterward, will be given directly to the respondents via e-mail or through available social media. The researchers will also distribute questionnaires to families, colleagues, and relatives for those who work at startups and serve as managers or CEOs by sending them the *URL* (link) which has been created on Google Form. As for other methods (if necessary); the researchers will print a hard-copy of the questionnaire sheet, and directly visit the accessible startup offices.

This study used a measurement that is consistent with the conceptualization, where all items will be evaluated through 6 points Likert scale. Point 1 means (strongly disagree), 2 (disagree), 3 (slightly disagree), 4 (slightly agree), 5 (agree), and point 6 means (strongly agree). The measurement scale for each construct is based on the following table.

Table 1. The Sources of Construct Measurement

Construct	Source
Entrepreneurial Orientation	Zhou et al. (2010)
Market Orientation	Narver & Slater (1990)

Digital Platform Capability	Cenamora et al. (2019)
Environmental Turbulence	Kohli & Jaworski (1993)
Firm Survival	Naidoo (2010)

1.6. Methodology and Data Analysis

The methodology of this study is structured to answer the problem formulation and study objectives which have been set in the introduction, as well as to test the seven hypotheses of the proposed model. The method used in this study is a quantitative method supported by research studies that are exploratory and conclusive. The data were collected by distributing questionnaires to managers, directors, or CEOs in 120 digital startups domiciled in Greater Jakarta Area. This was done to obtain the desired information, which will later be used as the primary data in this study. Furthermore, the primary data will be processed through descriptive and inferential statistics using the Structural Equation Modeling (SEM) PLS instrument.

The data analysis method used in this study is variant-based SEM with the PLS method. This was used to operationalize constructs, test the compiled hypotheses, and make predictions about the relationship between each construct. The first step is by analyzing the outer model on the indicators which have been set on the operationalization of the variables, which aims to ensure that the measurement model in each construct has high validity and reliability. Afterward, an inner model analysis was conducted by involving many constructs, in order to examine the relationship between each variable. This data analysis was done using Smart PLS3 software.

Discussion

Finally, this study limits the assessment of firm survival to perception. This is because the current situation is still classified as a Covid-19 pandemic. Thus, in measuring firm survival, it is still based on the executive or managerial perceptions of the company. The managerial implication in this study is that hopefully, the entrepreneurs in the digital start-up field will be able to maintain their business in times of crisis by promoting the Entrepreneurial Orientation (EO) process, which can drive business strategies through Market Orientation and Digital Platform Capability. EO seeks to shape a digital start-up culture to be more innovative, proactive, and brave in taking risks; MO helps to set the company's strategic focus on new habits of consumers and competitors, and DPC uses digital platforms as an adaptation strategy to adjust market needs and industry competition. Meanwhile, from a theoretical perspective; this study contributes further to the development of the relationship between EO and MO towards the internal capability strategy which, in this case, uses the DPC construct. Moreover, moderating environmental turbulence on the relationship between MO-Firm Survival and DPC-Firm Survival will enrich studies on the impact of the external environment on firm business strategy and performance, especially in the context of digital start-ups.

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