Disruptive Business Model Innovation in Indonesia Digital Startups

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ABSTRACT

Many studies have investigated how incumbents react to disruptive business model innovation. However, how digital (tech) startups as the initiator performs business model innovation that consciously or not disrupts incumbents from various industries, has not yet been widely analyzed empirically. This study employed a quantitative method with Partial Least Squares-Structural Equation Modeling (PLS-SEM) using SmartPLS 3 software to present and analyze the data. The sample of Indonesia digital startups was taken from the list managed by DailySocial, an Indonesia digital media startup. A self-administered questionnaire was distributed among the Founders and or C-Level of Indonesia startups adopting a random sampling technique. The findings of this study showed that startups apply disruptive business model innovation to survive and scale-up. This study also suggested some predictors of disruptive business model innovation. As an alternative to implementing dynamic capabilities, startups need to have transformation capability in the form of continuous reconfiguration capability; leadership aspects, especially entrepreneurship mentality, which are embodied in strategic orientation; and stakeholder management support.

Keywords: Continuous reconfiguration capability, disruptive business model innovation, startups, strategic orientation, stakeholder management

INTRODUCTION

Digital (tech) startups (referred to “startups” in this study) have industrialized rapidly around the world, including in Indonesia, especially in the 4.0 Industrial Era, as many traditional industries are facing disruption. Many startups perform new business
models to survive and scaling-up (Balboni et al., 2014; PricewaterhouseCoopers, 2013). As opposed to startups, incumbents prefer implementing sustaining innovation to disruptive business model innovation (shortened as “DBMI”) because the latter is not financially interesting (Christensen, 2006).

Two kinds of generic strategies are used for responding to DBMI namely explorative adoption of a disruptive business model and exploitative strengthening of an existing business model (Osiyevskyy & Dewald, 2015). These two kinds of responses do not include the innovation of a business model but instead involve adaption and evolution (Foss & Saebi, 2016). Today, there are many studies on how incumbents respond to DBMI. However, there is little research on disruptive business model innovation conducted by a disruptor, especially by digital (tech) startups.

Previous research focused on how a firm responds to disruptive innovation, specifically DBMI (Habtay & Holmén, 2014; Karimi & Walter, 2016; Osiyevskyy & Dewald, 2015) and others. Several studies focus on a firm as an initiator of DBMI as well. However, most of these studies are simply literature/on desk studies as well as case studies, for instance, Attias (2017), Chu (2017), and Aminoff et al. (2017).

Dynamic capabilities are pivotal to respond to the rapid change of the business environment to enable the successful transformation that is called reconfiguration (Teece, 1997, 2007). Dynamic capabilities affect the company in creating disruptive innovation (Čiutienė & Thattakath, 2014). This study will investigate this reconfiguration capability as one of the antecedents of DBMI, which acts as a transformation capability.

This study focuses on how startups, which are from multiple industries, manage their businesses to sustain and achieve scale up by executing DBMI as disruptors. This study sets Indonesian startups as a specific object with empirical field research.

A research question of this study is, “What are the predictors of DBMI, and how do these enable Indonesia startups to attain DBMI, which makes their businesses sustainable and scale up?” The purpose of this study is to present guidance to entrepreneurs on either startups or incumbents on how to understand the way startups disrupt routine business, including how to implement DBMI.

The same as startups around the world who are facing a high failure rate as much as 90% (Patel, 2015), Indonesia startups have been facing such a problem as well, perhaps even worse. Some researchers conclude that the primary cause of startup failure, according to the founders, is because the business model is not viable (Truong, 2016). Aside from that, especially for Indonesia startups, they do not have an adequate ecosystem to nurture them. However, it is not a sustainable business issue that engenders the growth of the startups’ number as the only challenging problem; thus, scaling up Indonesia startups is also another issue (Widjaja, 2017).
Literature Review

This literature review discusses disruptive business model innovation, predictors of DBMI, including continuous reconfiguration capability, stakeholder management, and strategic orientations focused on entrepreneurship orientation and strategic innovation orientation, including marketing orientation and technology orientation. A discussion of startups as a research context will precede this section.

Startups

There is no widely agreed definition of startups. According to Ries (2011), a startup is an organization dedicated to creating something new under conditions of extreme uncertainty. The definition of startups in this study refers to Ries (2011). This study defines a startup as “an organization with efficient resources and entrepreneurship mentality to persistently create something new in the VUCA (volatility, uncertainty, complexity, ambiguity) business environment, through good product/services innovation, process/technology innovation, and business model innovation to achieve a scalable, repeatable, profitable business model, which involve internal and external resources supported by relevant technology, which can give value to users of its products/services” (Blank & Dorf, 2012; Hall, 2011; Ireland, 2017; Robehmed, 2013; Ries, 2011; Sawers, 2011). Therefore, the purpose of startups is always to offer a better solution for targeted customers through the provision of products/services or another cutting-edge means through which business is delivered.

Startups are encouraged to consciously create existing business opportunities especially given broader funding (Kanze & Iyengar, 2017) by always meeting customers’ needs, which have not been appropriately satisfied or have not yet been served at all. As a disruptor, it does not mean a negative connotation but rather to encourage and stimulate to find an alternative to the existing business model.

Triggered by inferior internal resources, startups can conduct DBMI to challenge incumbents by creating new opportunities (Christensen et al., 2015). Moreover, this situation can also support these startups to have an alliance with partners in targeting an ignored market such as the low-end market.

Disruptive Business Model Innovation

The definition of business model innovation remains unclear (Foss & Saebi, 2017). According to some literature, business model innovation appertains disruptive innovation (Markides, 2006; Voelpel & Leibold, 2004). According to Markides (2008), DBMI is fundamentally different from disruptive technology/product innovation. However, many scholars have argued that business model innovation is a new thing not only for firms but also for industries (Foss & Saebi, 2016).

This study defines disruptive business model innovation as “changes in the architectural design to include fundamentally different content, structure, and governance through resource reconfiguration of both tangible and intangible assets so that they can excel in the arena of competition.”
or competitive advantage and finally achieve value creation for a company and its stakeholders, namely customers, suppliers, and partners” (Amit & Zott, 2012; Casadesus-Masanell et al., 2013; Markides, 2006; Santos et al., 2009). Disruption related to the market includes two new dimensions: low-end foothold disruption and new-market foothold disruption (Christensen et al., 2015).

Many studies related to DBMI indicate that they are different from business model innovation in general. Those studies aimed to illustrate the incumbent adoption of this disruption. There has been little research on how startups from the perspective of startup entrepreneurs as new entrants act as initiators in conducting DBMI. Most DBMI implementation searches for opportunities from unserved customers through low-cost offerings, and eventually, they take over the incumbents’ market share (Charitou & Markides, 2003; Markides, 1997, 1998, 2006).

Of the many studies about responding to DBMI, Zhang et al. (2017) studied DBMI as an initiator strategy. The authors used multiple comparative case studies on a single industry which are internet financial service firms in China. The study resulted in suggestions on how to drive the process to perform DBMI. Table 1 shows several recent studies on DBMI. It is different from those previous studies since this study focuses on DBMI as a first-mover strategy and its predictors via empirical research on Indonesia startups.

**Predictors of Disruptive Business Model Innovation**

The predictors of DBMI in this study include three aspects: 1) dynamic capabilities of an organization’s predominant transformation capability; 2) leadership expressed in entrepreneurship mentality and embodied in strategic orientation; and 3) as a support, management of stakeholders that stress four primary stakeholders, including customers, partner, employees/talent, and government.

Startups should have dynamic capabilities to respond VUCA. Dynamic capabilities are “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.” And one of its dimensions that is reconfiguration capabilities is crucial because they encourage transformation (Teece, 2007). Reconfiguration should be done continuously because the continuous flow of dynamic capabilities enables organizations to take new strategic opportunities in the face of volatility in the environment (Vivas López, 2005), which include the capabilities to become active enablers of the creation of disruptive innovation (Čiutienė & Thattakath, 2014; Teece, 2018; Teece et al., 2009).

Continuous reconfiguration capability has relations with a strategic orientation, especially marketing orientation and entrepreneurial orientation (Kiiru, 2015; Kiiru et al., 2013). Various studies also show that strategic orientation comprises 1) entrepreneurial orientation, which is involved in dynamic capabilities, and 2) strategic innovation orientation, including marketing
Table 1
*Studies on DBMI, previous and this research*

<table>
<thead>
<tr>
<th>Authors</th>
<th>Year</th>
<th>Title</th>
<th>Country &amp; Industry</th>
<th>Research type</th>
<th>Description</th>
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<tbody>
<tr>
<td>Sabatier et al.</td>
<td>2012</td>
<td>When technological discontinuities and disruptive business models challenge dominant industry logics: Insights from the drugs industry</td>
<td>Europa: Drug industry with four types: software as a service, platform technologies, bundling, collaborative discovery</td>
<td>Qualitative &amp; Case studies</td>
<td>The study found three triggers of change in high technology fields, technological discontinuities to disrupt an industry's dominant logic. It suggests initially entrants' business model that fits into the dominant logic and value chains remain unchanged, after technologies evolve and uncertainty decreases, disruptive business models may emerge.</td>
</tr>
<tr>
<td>Habtay &amp; Holmén</td>
<td>2014</td>
<td>Incumbents' responses to disruptive business model innovation: The moderating role of technology vs. market-driven innovation</td>
<td>South Africa: Mobile communications, insurance, banking, and airline industries.</td>
<td>Comparative multiple case studies to build conceptual model</td>
<td>It is different from incumbents' response to disruptive technology innovations, incumbents response to market-driven innovations can succeed in managing both disruptive and sustaining innovations without setting up structurally separated business units.</td>
</tr>
<tr>
<td>Amshoff et al.</td>
<td>2015</td>
<td>Business model patterns for disruptive technologies</td>
<td>Germany: Engineering Companies</td>
<td>Conceptual paper</td>
<td>The study presents a methodology for pattern-based business model design simplifying the development and analysis of business models for disruptive technologies.</td>
</tr>
<tr>
<td>Osiyevskyy &amp; Dewald</td>
<td>2015</td>
<td>Explorative versus exploitative business model change: The cognitive antecedents of firm-level responses to disruptive innovation</td>
<td>Canada: Real estate brokerage industry</td>
<td>Quantitative</td>
<td>Firms respond to DBMI by two generic strategies: (1) explorative adoption; and (2) exploitative strengthening of the existing business model. The study tested the cognitive antecedents of managerial intentions for both strategies. Some cognitive antecedents are found either positive or negative associations to the two kinds of adaptation.</td>
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<tr>
<td>Karimi &amp; Walter</td>
<td>2016</td>
<td>Corporate Entrepreneurship, disruptive business model innovation adoption, and its performance: The case of the newspaper industry</td>
<td>USA: Traditional newspaper</td>
<td>Quantitative</td>
<td>Companies as incumbents respond to disruptive business model innovation by corporate entrepreneurship attributes. All attributes have positive associations with the extent of adoption of DBMI except innovativeness. Adoption shows a nonlinear association with business model performance.</td>
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<tr>
<td>Rusitschka et al.</td>
<td>2016</td>
<td>Disruptive potential and business model innovation through elastic Microgrid-As-A-Service (MAAS) platforms</td>
<td>Germany: MAAS</td>
<td>On desk/literature study</td>
<td>The emerging &quot;dynamic microgrids&quot; becomes disruptive potential and business model innovation through microgrid-as-a-service (MAAS) providers.</td>
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<tr>
<td>Authors</td>
<td>Year</td>
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<td>Country &amp; Industry</td>
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<td>Attias</td>
<td>2017</td>
<td>The autonomous car, a disruptive business model?</td>
<td>France: Automobile</td>
<td>On desk/literature study</td>
<td>The development of self-driving car innovations and potentially</td>
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<td>World wide: Four large digital</td>
<td>On desk/literature study</td>
<td>disruptive business models by digital companies.</td>
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<td>startups</td>
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<td>Chu</td>
<td>2017</td>
<td>Business model revolution: Four cases of the fastest-growing, disruptive companies of</td>
<td>Worldwide: Four large digital (tech)</td>
<td>On desk/literature study</td>
<td>The capability of business model innovation becomes key for</td>
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<td>the twenty-first century</td>
<td>startups</td>
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<td>long-term survival in a turbulent and fast-changing environment. Without</td>
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<td>BMI, competitive advantage is likely to become less and less sustainable in</td>
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<td>the future.</td>
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<td>Aminoff et al.</td>
<td>2017</td>
<td>Exploring disruptive business model innovation for the circular economy</td>
<td>Finland: Industrial companies</td>
<td>On desk/literature &amp; conceptual study</td>
<td>The study develops a conceptual framework for shaping the industrial systems</td>
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<td>towards circular economy (CE) ecosystems through disruptive business model</td>
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<td>innovations and proposes value circles and co-creation of value are crucial</td>
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<td>aspects in enabling CE.</td>
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<td>Zhang et al.</td>
<td>2017</td>
<td>Exploring the multi-phase driven process for disruptive business model innovation of</td>
<td>China: e-Business microcredit firms</td>
<td>Multiple comparative case</td>
<td>There are three phases that drive the DBMI of e-business microcredit firms.</td>
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<td></td>
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<td>e-business microcredit: A multiple case study from China</td>
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<td>study</td>
<td>Several integrated forces drive the process, i.e., market, technology,</td>
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<td>policy, competition, and entrepreneurs' groups.</td>
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<td>Vorbach et al.</td>
<td>2017</td>
<td>Business model innovation vs. business model inertia: The role of disruptive technologies</td>
<td>Europa: N.A.</td>
<td>On desk/literature study</td>
<td>It discusses the impact of disruptive technologies on BMI and the factors</td>
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<td>that hinder the adoption of new technological developments.</td>
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<td>Watanabe et al.</td>
<td>2018</td>
<td>Digital solutions transform the forest-based bio-economy into a digital platform</td>
<td>USA and Finland: Online retail (Amazon)</td>
<td>On desk case study</td>
<td>Study on effects of creative disruption in downstream on the market value</td>
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<td>industry - A suggestion for a disruptive business model in the digital economy</td>
<td>and forest-based bio-economy, pulp and</td>
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<td>increase in upstream firms. The impact of this digital-solution-driven</td>
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<td>paper and other bio-products</td>
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<td>transformation stream is dynamism transforming the forest-based bio-economy</td>
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<td>(two Finland firms).</td>
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<td>into a digital-solution-driven creative disruption platform. It also gives</td>
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<td>a significant impact on the whole value chain ecosystem of the forest-based</td>
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<td>bio-economy.</td>
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<td>Gularso et al.</td>
<td>2018</td>
<td>Disruptive business model innovation in Indonesia digital startups</td>
<td>Indonesia: Digital startups</td>
<td>Quantitative empirical study</td>
<td>Study on how digital startups are initiating disruptive business</td>
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<td>model innovations. It shows three predictors: transforming capability as</td>
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<td>the enabler to innovation implementation, leadership embodied in</td>
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<td>entrepreneurship mentality, and stakeholder support.</td>
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</table>
Disruptive Business Model Innovation in Indonesia Digital Startups

orientation and technology orientation, with mixed dimensions, which has a positive relation with innovation, including business model innovation (Bouncken & Lehmann, 2016; Chomvilailuk, 2016; Mütterlein & Kunz, 2017; Teece, 2018; Tacheva, 2007; Vázquez et al., 2001).

The following two hypotheses express two relationships, i.e., between continuous reconfiguration capability and strategic orientation as well as DBMI:

**H1:** Continuous reconfiguration capability is positively related to disruptive business model innovation.

**H2:** Continuous reconfiguration capability is positively related to strategic orientation.

According to Geissdoerfer et al. (2017), the first stage of the business model innovation process is ideation, which includes the purpose of innovation and the definition of critical stakeholders. Stakeholder management is a dynamic and essential aspect of creating a value proposition. Porter argued that, if stakeholder management is aligned with the strategic positioning of firms, these firms will create a competitive advantage. However, to some extent, stakeholder cohesion may reduce the propensity for innovation and change (Minoja et al., 2010).

Startups who are conducting disruptive innovations will attract affected stakeholders’ attention related to the concerned disruption either directly or indirectly. Instead of considering stakeholders who are affected due to the innovation, startups must focus on customers and products/services development to grow their business (Giardino et al., 2014; Rais & Goedegebuure, 2009). However, specific stakeholders cannot be avoided and will take up their focus when startups reach a particular stage in doing their business (Ter Halle & Ruel, 2016). A study conducted on Taiwanese service and manufacturing companies shows that pressure from competitors, governments, and employee conduct has a significant and positive effect on green innovation practices (Weng et al., 2015).

Following the “startups” definition of this study, we argued that startups are required to have a disruptive innovation mentality to be successful. It means that the implementation of a company strategy should base on stakeholders primarily: 1) targeted customers, 2) talents/employees who become enablers of innovation, 3) partners in operational as well as financial aspects, and 4) government generally ignored by startups in the early stages not to be inhibitors of innovation created. Thus, this study focused on those four stakeholders.

The relationship between stakeholder management and strategic orientation, as well as DBMI, are set out in the following two hypotheses:

**H3:** Stakeholder management is positively related to disruptive business model innovation.

**H4:** Stakeholder management is positively related to strategic orientation.
Some implications of strategic orientation are innovation capability/innovation success and competitive advantage towards market performance. Further, various innovation capabilities are marketing innovation, product innovation, and process innovation (Tutar et al., 2015). While, two important types of innovation is radical and disruptive innovation those are aimed at dealing with an uncertain environment through product innovation, processes, and business models. The new business models eventually cannibalize a firm’s prior business model (Obeidat, 2016). These studies have explained that the consequences of strategic orientation are business models innovation, which might have a disruptive impact.

Furthermore, the relationship between strategic orientation and DBMI is set out in the following hypothesis:

**H5:** The positive relationship exists between strategic orientation and disruptive business model innovation.

**MATERIALS AND METHODS**

The objective of this study was to examine how DBMI was organized and implemented in its antecedent of the VUCA business environment in the context of Indonesia startups. Based on the hypotheses, the relationship among potential variables was analyzed using partial least squares-structural equation modelling (PLS-SEM).

**Research Design**

This study employed a quantitative method with a cross-sectional survey using a questionnaire with a Likert four scale was used to avoid tendencies to centre answers. The questionnaire was formed using Google Forms and majority distributed online (more than 98%), either through email or WhatsApp, Line, and Telegram or for a relatively small portion (less than 2%) through offline by directly distributing the hardcopy questionnaire to Founders and or C-Level of Indonesia startups from January to May 2018. To ensure that the questionnaires were filled out by the intended respondents, the forms were distributed through related personal accounts.

The sample of 327 startups was taken randomly from the population of Indonesia startups, amounting to 772 within the list owned by DailySocial, an Indonesia digital media startup, as per 31 December 2017. A total of 62 startups from the sample could not be reached. Thus, the remaining 265 questionnaires were distributed. The total number of the returned questionnaires was 107 equals to 32.7% of the total sample or 40.4% of the distributed questionnaires.

Nulty (2008) suggested guidance to prevent the potential for systematic sample bias that under ‘Stringent conditions’ (3% sampling error and 95% confidence) for an online survey with data size between 750 and 1000, the required response rate was about 41% and 48%. Nulty (2008) also presented data based on several researchers; the average response rate for online surveys.
was 33%. This study data collection rate above is moderately close to the required response rate and could be deemed as adequate.

The theoretical objective of this study was primarily to predict and identify the relationships between continuous reconfiguration capability and stakeholder management in achieving DBMI through strategic orientation, as depicted in Figure 1.

Partial least-squares structural equation modelling (PLS-SEM) was used to develop theories and to assess measurement (individual constructs) and structural (the relationships between constructs) models, especially when the sample size was small (Reinartz et al., 2009). The results of the multivariate analysis using this PLS-SEM were then confirmed by several small group discussions with some business communities of business people/managers and investors/venture capitalists.

RESULTS AND DISCUSSIONS

The data from 107 respondents were processed using SmartPLS 3 software and then analyzed using a two-step approach to assess the partial model structures using the measurement model (outer model) and the structural model (inner model). After that, an analysis using the importance-performance matrix analysis (IPMA) approach (Hair et al., 2014) was conducted to provide the findings for managerial actions and suggestions. Descriptive analysis, including discussions, results with Founders and or C-Level, and investors were added as an interpretative explanation of the result. Two highlights of respondents’ profiles are types of startups and compound annual growth rates (CAGR). There are nine types of startups and other types (Figure 2). The most are startups are marketplace and e-commerce. Almost half of the total respondents admitted more than 50% of CAGR (Figure 3).
This study applied structural equation modelling (SEM) for multivariate data analysis. All indicators in this study were reflective measures. Thus, they were analyzed based on internal consistency reliability and validity, including composite reliability, individual indicator reliability, average variance extracted (AVE) to evaluate the convergent validity, and cross-loadings as well as the Fornell-Larcker criteria to assess discriminant validity.

Instead of applying the Cronbach’s alpha, Hair et al. (2014) recommended applying composite reliability to measure internal consistency, in which all result values were within and above a satisfactory range of 0.70 to 0.90 (Nunnally & Bernstein, 1994). The AVE values are all above the 0.50 threshold. Thus, the constructs explain more than half of the variance of its indicators. The reflective measurement models are presented in Table 2.
Subsequently, for the evaluation of structural models, Hair et al. (2014) suggested using the following key criteria: collinearity issues (VIF), the level of $R^2$ values, the $f^2$ effect size, the predictive relevance ($Q^2$), and the significance of the path coefficients. However, the goodness-of-fit (GoF) measurement is not applicable to this PLS-SEM. VIF results are within a tolerance value of 0.2 or lower and a value of 5 or higher, as shown in Table 3, which means all are free from collinearity problems.

Table 2
Results summary for reflective measurement models

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>Indicators</th>
<th>Loadings</th>
<th>Indicator reliability</th>
<th>Cronbach Alpha</th>
<th>Composite reliability</th>
<th>AVE</th>
<th>Discriminant validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRC</td>
<td>crc_1</td>
<td>0.754</td>
<td>0.569</td>
<td>0.836</td>
<td>0.883</td>
<td>0.601</td>
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<tr>
<td></td>
<td>crc_2</td>
<td>0.770</td>
<td>0.592</td>
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<td></td>
<td>crc_3</td>
<td>0.793</td>
<td>0.629</td>
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<td></td>
<td>crc_4</td>
<td>0.811</td>
<td>0.658</td>
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<td></td>
<td>crc_5</td>
<td>0.747</td>
<td>0.558</td>
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<td>DBMI</td>
<td>dbmi_1</td>
<td>0.699</td>
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<td>0.740</td>
<td>0.835</td>
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<td></td>
<td>dbmi_2</td>
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<td>dbmi_3</td>
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<td>0.553</td>
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<td>dbmi_4</td>
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<td>SM</td>
<td>sm_1</td>
<td>0.765</td>
<td>0.585</td>
<td>0.858</td>
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<td>sm_2</td>
<td>0.721</td>
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<td>sm_3</td>
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<td>sm_4</td>
<td>0.825</td>
<td>0.680</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sm_5</td>
<td>0.843</td>
<td>0.710</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO</td>
<td>so_1</td>
<td>0.617</td>
<td>0.381</td>
<td>0.798</td>
<td>0.858</td>
<td>0.508</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>so_2</td>
<td>0.522</td>
<td>0.272</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>so_3</td>
<td>0.691</td>
<td>0.477</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>so_4</td>
<td>0.830</td>
<td>0.689</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>so_5</td>
<td>0.816</td>
<td>0.666</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>so_6</td>
<td>0.750</td>
<td>0.562</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3
Evaluation of structural models

<table>
<thead>
<tr>
<th>DBMI</th>
<th>SO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inner VIF</td>
</tr>
<tr>
<td>CRC</td>
<td>1.188</td>
</tr>
<tr>
<td>SM</td>
<td>1.476</td>
</tr>
<tr>
<td>SO</td>
<td>1.565</td>
</tr>
</tbody>
</table>

$R^2$ values show that exogenous latent variables CRC and SM explain 36.1% of the variance in the endogenous latent variable SO. Likewise, latent variables CRC, SM, and SO explain 39.7% of the variance in the endogenous latent variable DBMI. Further, because the $R^2$ values are above 0.25, the number of sample size in this research (107) is adequate (Cohen, 1992). Meanwhile, all $Q^2$ values are higher than 0, which means that the exogenous construct has predictive relevance for the two endogenous constructs under consideration. The results of $R^2$ and $Q^2$ values are shown in Table 4.

Table 4
Results of $R^2$ and $Q^2$ values

<table>
<thead>
<tr>
<th>Endogenous Latent Variable</th>
<th>$R^2$ Value</th>
<th>$Q^2$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBMI</td>
<td>0.397</td>
<td>0.183</td>
</tr>
<tr>
<td>SO</td>
<td>0.361</td>
<td>0.166</td>
</tr>
</tbody>
</table>

The effect size $f^2$ values are compared with thresholds of 0.02, 0.15, and 0.35, which indicate that the effects of an exogenous construct on an endogenous construct are small, medium, and large, respectively. From the $f^2$ values, it can be seen that CRC has a small effect on DBMI and relatively small to medium effect on SO. SM has also small to medium effect on DBMI. SO has a relatively medium effect on DBMI, while the SM variable has also a medium to large effect on the SO construct. The effect size of $f^2$ values is shown in Table 3.

The path coefficient values results (Table 3) are aligned with the $t$-value, which determines that the significance of the relationship between two variables with a threshold of $\geq 1.96$ is significant using a two-tailed test with significance level $= 5\%$. We find that all relationships in the structural model are significant, except CRC $\rightarrow$ DBMI and SM $\rightarrow$ DBMI.

The results confirm the significant roles of the two exogenous variables, the endogenous variable, as well as the final dependent variable that is a disruptive business model innovation that is shown in the research model. The implementation of disruptive business model innovation to the context of the research “startups” confirms the vital role of the business model in startup success, survive, and scale up as a former study by Balboni et al. (2014). Table 5 shows the summary results of hypothesis significance testing.

The study also proves that there are predictors as an alternative implementation of dynamic capability. The dynamic capability is made from the superposition of 1) continuous reconfiguration capability; 2) stakeholder management that focuses on customers, talents, partners (operational and financial aspects), and government to achieve 3) strategic orientation that focuses on entrepreneurial, marketing, and technology orientation. This alternative embodiment of dynamic capability had supported the previous studies namely Kiiru et al. (2013), Szymaniec-Mlicka (2016), Tutar et al. (2015), and Obeidat (2016).

From the results of the discussions, many startups recommend to not merely focus on profit-oriented but more oriented to customer need that is explicitly not been
Table 5  
Results of hypothesis significance testing

<table>
<thead>
<tr>
<th>Effect of Latent Variable</th>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Reconfiguration Capability (CRC) has a positive relation with Disruptive Business Model Innovation (DBMI).</td>
<td>H1: Continuous Reconfiguration Capability (CRC) is positively related to Disruptive Business Model Innovation (DBMI)</td>
<td>0.120</td>
<td>1.429</td>
<td>H1 is rejected, t-value is &lt; 1.96, and there is no significant effect. Data do not support the hypothesis.</td>
</tr>
<tr>
<td>Continuous Reconfiguration Capability (CRC) has a positive relation with Strategic Orientation (SO).</td>
<td>H1: Continuous Reconfiguration Capability (CRC) is positively related to Strategic Orientation (SO)</td>
<td>0.233</td>
<td>2.087</td>
<td>H1 is accepted, t-value is ≥ 1.96, and there is a significant positive effect. Data support both hypothesis and research model.</td>
</tr>
<tr>
<td>Stakeholder Management (SM) has a positive relation with Disruptive Business Model Innovation (DBMI).</td>
<td>H1: Stakeholder Management (SM) is positively related to Disruptive Business Model Innovation (DBMI)</td>
<td>0.244</td>
<td>1.726</td>
<td>H1 is rejected, t-value is &lt; 1.96, and there is no significant effect. Data do not support the hypothesis.</td>
</tr>
<tr>
<td>Stakeholder Management (SM) has a positive relation with Strategic Orientation (SO).</td>
<td>H1: Stakeholder Management (SM) is positively related to Strategic Orientation (SO)</td>
<td>0.487</td>
<td>5.244</td>
<td>H1 is accepted, t-value is ≥ 1.96, and there is a significant positive effect. Data support both hypothesis and research model.</td>
</tr>
<tr>
<td>Strategic Orientation (SO) has a positive relation with Disruptive Business Model Innovation (DBMI).</td>
<td>H1: The positive relationship exists between Strategic Orientation (SO) and Disruptive Business Model Innovation (DBMI)</td>
<td>0.399</td>
<td>3.145</td>
<td>H1 is accepted, t-value is ≥ 1.96, and there is a significant positive effect. Data support both hypothesis and research model.</td>
</tr>
</tbody>
</table>
served by existing players/incumbents. One of Indonesia Unicorn startup founders argues: “In building startups, instead of focusing on the profit that we will get later, we focus on products/services those are needed by targeted customers.” This assertion supports the role of strategic orientation as a guideline for all member of the organization as described above.

CONCLUSION
Organizations need DBMI to survive and grow. Its implementation requires its predictor, which is dynamic capabilities, in the form of entrepreneurial activities (Foss & Saebi, 2016). In this study, these activities appear in some predictor variables. This study is about predictors of DBMI, which tested the relationship between variables using a structural equation model in the context of Indonesia startups.

The strategic-orientation construct in startups focuses on entrepreneurship and strategic innovation orientation, including marketing and technology orientation. This focus is consistent with that of previous studies stating that startups focus on customers and products/services development to grow a business (Giardino et al., 2014). Entrepreneurship orientation is needed because scale-up is essential for startups. This orientation is following the startups’ definition of this study, in which entrepreneurship mentality is essential to make a business grow by conducting DBMI which is something new that gives more value to customers. This characteristic also distinguishes startups with a small business owner (Carland et al., 2013) or large-scale incumbent, which tends to sustain innovation (Boons & Lüdeke-Freund, 2013; Christensen, 2006).

Besides evolution through sustainable innovation and adaptation by conducting adoption DBMI, an organization needs to set aside the allocation of its resources to respond to the VUCA environment by working to build a dynamic culture that is as the initiator of DBMI by looking for new opportunities for customers, especially neglected low-end customers.

It is interesting to note that the DBMI, which has predictor dynamic capabilities, in this research is not only in the form of continuous reconfiguration capability and strategic orientation variables but is also a stakeholder management variable. This study also offers insight for startups in underscoring the focus target of customers as well as talent/employees and partners at an early stage. Startups also need to harvest concern for stakeholder regulations/government in the right momentum.

Limitations and Recommendations for Further Research
Due to the consideration of the number of startups, some of the possible influencing aspects are not measured as the limitations of this study. However, the results of this study are satisfactory as preliminary research to be followed up by further researches on strategy and growth management of digital startups. Future researches should consider aspects such as the age and scale of organization,
the existence of investors/venture capitals, and the maturity of Founders and or C-Level that can be used as control variables.

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