RESEARCH ARTICLE

BUSINESS MODEL, INNOVATION, AND ENTREPRENEURIAL ORIENTATION ON DIGITAL START-UP SUSTAINABILITY IN INDONESIA

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Abstract: **Purpose**–Digital-based start-up industryhas mushroomed in Indonesia, even though its failure rate is relatively high. Business modelis one of the determinant factors for the success and failure of a start-up. The aim of this research is to provide an understanding on the relationships of business model, entrepreneurial orientation, innovation, and sustainable performance at digital start-up companies in Indonesia. **Design/methodology/approach** – a total of 206 respondents from all over Indonesia had participated in an online survey. The data were analyzed using structural equation model. **Findings** – the results of the study identified that business modelhas an important role in achieving sustainable performance. Entrepreneurial orientation and innovation are required to support business model. Entrepreneurial orientation is reflected from the attitude of the leadership, and it has more influence than innovation in achieving a company's sustainable performance.**Original/value** – Novelty is achieved from testing and analyzing the relationships amongst entrepreneurial orientation, innovation, business model, and sustainable performancein one model. The current study discusses the factors that influence the formation of business modelat digital start-up companiesin Indonesia.

Keywords : Entrepreneurial orientation, innovation, business model, digital start-up, sustainable performance.
JEL Classifications: M2, M4, O3

Introduction

There has been a rapid development in the information technology in Indonesia. This can be seen from the total number of Internet users in Indonesiawhich reaches up to 143.26 million people or 54.68% from the total population of Indonesia. The development of Internet is also parallel with the development or other digital-related activities, one of them is digital business, or commonly known as digitalstart-up. According to Ries (2011), a start-upis either a profit or non-profit based organization developing new products or services and making effort to grow in an unstable situation. Start-up can also be defined as an organization that is still looking for its form of appropriate business modelto earn a measured and repeatable business model (Blank, 2013).

The high growth of digital start-up companies is accompanied by their high rate of failure. A research found that the failure rate of start-up companiesis as high as 90% (Almand Law, 2013). The phenomenon is

supported by the data from one of the start-up incubatorsin Indonesia, Bandung Techno Park (2017), reporting that the failure rate of start-up companiesis as high as 80%.Start-up companieshave made numerous efforts to survive, one of them is through designing an appropriate business model. According to Boons and Lüdeke-Freund (2013), selecting the appropriate business modelis one of the contributing factors for a company's sustainability. Based on the report data from CB Insight (2018), the errors in selecting for the business modelis one of the primary causes ofstart-up companies' failures.

A number of factors influence the decision on an appropriate business model,one of them is entrepreneurial orientation (Raunch, Wiklund, and Lumpkin, 2009).According to Autere et al.(2010), entrepreneurial orientationhas a positive influence on the selection for a business model. One of the factors that commonly occur in start-up companiesis that the leaders in thedigital start-up companiesin Indonesiaare more concerned on oriented on the future value of the company, but they ignore their companies'present needs, which resulted in the companies are running out of money to run the companies' operations. This phenomenon is supported by the data from CB Insight (2018), which shows that the failures of start-upare mostly due to running out of money.

The main reason for running out of money is caused by innovation or the lack thereof, either on the business modelinnovation or the product innovation of the start-up companiesthat is not considered as a niche service or product. Based on BTP's(2017) data, as many as 70% of the start-up companieslisted in BTP have not yielded enough revenue to survive since they strived for innovations that did not meet the customers' expectations and needs, so no one consumed their product. However, if an innovation is appropriately made, it can have good effect on the sustainability of the company (Schaltegger and Wagner, 2011).

Based on the above phenomenon, this current study evaluates and provides better understanding on the relationships of business model, entrepreneurial orientation, innovation, and sustainable performanceat digital start-up companiesin Indonesia.Novelty is gained through testing and analyzing those four variables in one model, since to best of our knowledge the previous studies were only done partially.To achieve the purpose, this study performs a survey on more than 200 digital based start-up companiesleaders in Indonesia.

This study is organized as the following. First, reviewing relevant literature and developing the theoretical framework and hypothesis. Second, explaining the research and data collection methods. Third, performing data analysis and discussion. Fourth, the study emds with explaining the conclusions, limitations, suggestions, and implications of this current study.

Literature review

Innovation

Innovationhas long been introduced and it is closely tight to a change.A change is done to produce varieties of products and services (Schumpeter, 1939; Drucker, 1985). In its development, innovationhas also often been used to explain about the change of technology. According to Stata (1989), the change of technology can promote and broaden companies' horizons in producing novel products or services. Technological innovationwill support the companies to make changes in their business models or market adjustments (Chesbrough & Rosenbloom, 2002).Apart from its relationship with technology, the innovationmade by companies can also take the form of product innovation, service innovation, process innovation, marketing innovation, supply chain innovation, business model innovation, and the innovation process(Greenberg and Baron, 2008).

Innovationhas an important role to support companies' performance. Companies have to create innovationto reach a competitive advancement, so they can survive and develop (Gronhaug and Kaufmann, 1988). Companies also have to create innovation to keep on competing and surviving in the highly competitive environment (Chermin&Nijhof, 2005). Within a company, innovationis influenced by the internal or external factors. One of the external factors that can create innovation is the customer (Blazevic, 2008). Meanwhile, the internal factor that influences innovationis the companies' leaders (Bouckne, 2016).

Based on previous studies, the definition of innovation on research is change (Drucker, 1985; Zott& Amit, 2001; Du Plessis, 2007) in the form of the implementation of new ideas (Schumpeter, 1939; Zott & Amit, 2001; Du Plessis, 2007; Frankelius, 2009) which aims to renew the business model components (Zott & Amit, 2001) and has an influence on the companies' environment and also has an impact on the business outcome (Du Plessis, 2009) and it has a relationship with the achievement of competitive strength (Raunchet al., 2009). This current study is also supported by the use of several dimensions that refer to Gunday et al.'s(2011) proposal of organizational innovation, marketing innovation, process innovation, and product innovation.

Entrepreneurial Orientation

At the early development of entrepreneurial orientation, research was done to study decision-making. The research done by Mintzberg (1973)creates three patterns of decision making, entrepreneurial mode, aggressive proactive behavior, and adaptive or repetitive mode. Studies on entrepreneurial orientationthen develops into studies on managerial style. Khadwalla's (1977) study discussed on the entrepreneur's management style that reflects on a more daring, risky, and aggressive lifestyle in making decision and tend to be hasty in making actions. In the following studies, a

number of researchers made some modifications on the dimensions, such as adding a proactive dimension (Miller, 1983), adding futurity dimension (1989), and also adding autonomy and competitive aggressiveness dimension (1996).

Studies on entrepreneurial orientationhave continued to develop and it is often related to business competition.Companies need to have an entrepreneurial orientationsince there are some positive influences on the companies' development and innovation (Harms, Reschke, Kraus, and Fink, 2010). Entrepreneurial orientationalso has a role in the creation of business model,which also has an influence on companies' performance (Shahwan, 2015).

Based on previous studies, the definition of entrepreneurial orientationin this research is the behavior (Avlonitis & Salavou, 2007) in decision making(Covin & Slevin, 1989; Lumpkin & Dess, 1996) that are supported by the entrepreneurs'attitude in achieving competitive strength (Raunch, 2009). Also based on previous studies, risk-taking, proactiveness, and innovationare some of the dimensions often used in many studies. There were also a number of studies that separate the innovation dimensionentrepreneurial orientation, such as the studies of Tan and Litsschert (1994), Salavou and Lioukas (2003), Gürbüz and Aykol (2009), and Thoumrungroje and Racela (2013).

In this current study, the innovation dimensionbecomes a dependent variable, since according to Miller (1983), Lumpkin (1996), and Raunch et al.(2009), innovationon entrepreneurial orientationis more about product or service innovation. Meanwhile, on this current research, the examined innovation is the innovationin a broader meaning,such as product innovation, organizational innovation, marketing innovation, and process innovation. Therefore, innovationis again segregated into a separate variable that has a broader meaning.

Business Model

Business modelhas been known since 1970, but the term business model has only been widely known since the era of digital economy. At the beginning of the digital era, business modelwas introduced by Timmers (1998) who explained that business model is the architecture that explains a product, service, information, businesspersons, revenue, and capital source.In its development, there have been many studies that relate business model with the way a company yields money or income. One of the studies is Teece's (2010), mentioning that a good business modelis not only used as a company's guidelines in doing business but also can be used to satisfy the customer's needs.Rappa's (2001) study explains business modelas a method to run business to yield revenue to survive.The suggestion was supported by Afuahand Tucci (2001) who consider that a business modelexplains the way a company yield their cash by offering their added-value.

Not only that business model relates to the architectural and revenue studies, business model research also aims to uncover the model's benefit and role in a company. According to Chesbrough and Rosenbloom (2002), a business modelhas a role as a mediator for the process of value creation. Meanwhile,according to Teece(2010), a business modelhas a role to be able to fulfil the needs of the customer. In a business model, the customeris the most important element. According to Chesbrough and Rosenbloom's (2002) study, there is a value proportion element for the customer and it is the customersegment that shows the importance of customerin a company.

In this current study, business modelis defined as a business framework (Chesbrough & Rosenbloom, 2002; Magretta, 2002) which explains how a business can run and provide value for the customer(Amit&Zott, 2001; Magretta, 2002; Teece, 2010; Ostewalder, 2005), and it is also able to yield revenue that can be used to provide for the company's existence.This current study is supported by several business model dimension that refers to the recommendation of Amit and Zott (2007), the efficiency-based business modeland novelty-based business model. According to Zott and Amit (2007), the efficiency-based business modelrefers to how a company reaches the MB efficiency, to reduce the transaction cost for all of the participants who have a relationship with the company, novelty-based business modelexplains a new wayin performing economical trade between participants.

Sustainable Performance

The term *sustainability* is related totoday's and future's needs fulfilment which is related to the economic, social, and environmentfactors (Elkington, 1998). A company can achieve short-term sustainabilityby only paying attention to its economy, while to achieve a long-term sustainability, it can be achieved through paying attention to the economic, social, and environmental factors (Dyllick and Hockerts, 2002).Either large enterpriseor small enterpriseis now making effort to achieve company's sustainability, which also include start-upcompanies that are starting to perform based on sustainable principle (Rogers, 2010).According to Darcy et al.(2013), not only large enterprisecan achieve sustainability, a small enterpriseor small and medium enterprises (SMEs) can also achieve sustainability when they are influenced by human resources management and company's ability to achieve competitive strength.

Start-up companiescommonly are small enterprises that are helmed by the actual owner, so they are often associated with the term entrepreneurship and they are often tied to the entrepreneurial activities. Therefore, the sustainability in a start-up is often known as sustainable

entrepreneurship. Sustainable entrepreneurshipcan also be defined as the effort to maintain the opportunity and to yield future product and service, where their creation and exploitation will be influenced by the economic, psychological, social, and environmental factors (Cohen & Winn, 2007). Sustainable entrepreneurshipis said to have a good sustainable performanceif it can achieve the economic, social, and environmental goals (Eikelenboom & De Jong, 2017). Another thought came from York and Venkataraman (2010), who state that the sustainable entrepreneurshipis considered successful if it can survive financially without ignoring the social goal.

Based on previous studies, it can be concluded thatsustainable performanceexplainssustainabilityboth from the financial or non-financialside (Hall et al., 2010; Cohen & Winn, 2007; Shepherd & Patzelt, 2011) to maintain the future sustainability (Hall et al., 2010).Therefore, the definitionof sustainable performancein this current studyis to maintainbusiness sustainabilityin the financial and non-financial aspect, to maintain the company's life and its environmentin order to maintainfuture sustainability.This study is supported bythe use of some dimension that refers tothe notions of Schalteggeret al.(2012), which are cost and cost reduction, sales and profit margin, risk and risk reduction, and attractiveness as employer. Schalteggeret al.(2012) explains cost and cost reduction as a form ofefficiency and as means to save the company's cost; sales and profit margin the sales success to increase profit; risk and risk reduction is related tosocial risk reduction, finance, and also the company's internal and externalrisks; attractiveness as employer is related tothe company's ability to maintainits relationship with its employee.

Conceptual framework and hypotheses

Entrepreneurial orientation and business model

The relationship between entrepreneurial orientation and business modelcan be seen fromvalue creation and is related torevenue. According to Bounckenet al.(2016), entrepreneurial orientationcan supportvalue creation and value proportion,and also to support a company to make offer or new business model. Meanwhile,according to Autere, Peltonen, and Veltakoski (2010), entrepreneurial orientationhas a positive influence onbusiness model and business model selection can be said to moderate between entrepreneurial orientation and performance.If it is seen from the perspective of *revenue*, entrepreneurial orientation is related and contributing tobusiness model designthat shows how a company yields revenue (Shahwan, 2015; Raunch et al., 2009; Nur et al., 2014).Then, the hypothesis in this current studyis as follows:

H1. *Entrepreneurial orientation has a significant influence on business modelat digital start-up companiesin Indonesia.*

Entrepreneurial orientation and sustainable performance

A number of studies state that*entrepreneurial orientation*has a positive relationship withcompany performance sustainability (Wiklund, 1999; Lumpkin & Dess, 2001).Another view states thatan owner of small medium enterprisewho has the vision and a good entrepreneurial orientationcan perform sustainable developmentin its business (Spence et al., 2008).The study was supported by Grande, Madse, and Borch (2011), who state that entrepreneurial orientation has a positive relationship onperformance sustainability, assisting the company to survive for three years after implementing the notion of entrepreneurial orientation.Then, the hypothesis in this current studyis as follows.

H2. Entrepreneurial orientation has a significant influence on sustainable performance at digital start-up companiesin Indonesia

Innovation and business model

Sinfield et al.(2011) state thatinnovationhas an influence onbusiness model and also has an influence oncompany's profit. According to Lee, Olson, and Trimi (2012), the innovation processwill yield valuethroughnew product, new supply chain, and new business model. When there is a radical innovation, then a change or business model adjustments is needed to deliver valueto the customer (Teece, 2010).Digital-based start-up companieswill always perform innovationon technology. According to Chesbrough and Rosenbloom (2002), new innovationtechnologyrequires market and business model adjustments. During a market adjustment, definingarchitecture revenue is needed. This statementis supported by Baden-Fuller and Haefliger (2013), who stated thatthe development and innovationtechnologysupportsa business model changethat has an influence onthe change on how a company yield cash and gains profit.Then, the hypothesis in this current studyis as follows.

H3. Innovation has a significant influence on business model at digital start-up companiesin Indonesia.

Innovation and sustainable performance

*Innovation*in entrepreneurshipcan assist for solution development to achieve excellence in the competitionand achieve sustainable performance (Cohen & Winn, 2007). According to Teece (2007), innovationis needed to face a change,so a company can achievesustainable performance. There are positive and significant relationshipsbetweeninnovation abilitywith economic, environmental, and socialsustainability (Muhammad et al., 2014).According to Schaltegger & Wagner (2011), innovationhas an influence onsustainable performanceforsocial entrepreneuror start-up companyby paying attention on a changeof product innovation and the process from time to time, and a market change. According to Chang and Lee (2008), innovationhas to be performed by each unit of a company to maintain the

business growth sustainability and to be able to lead in the market.Then, the hypothesis in this current studyis as follows.

H4. Innovation has a significant influence onsustainable performance of digital start-up companies in Indonesia.

Business model and sustainable performance

The study performed by Schaltegger, Lüdeke-Freund, and Hansen (2012)explainsthat a business modelhas a significant influence on sustainable performance. Another studystates thatbusiness modelalso has an important roleonsustainabilityby creating social , ecological, and economic value (Lüdeke-Freund, 2013). A number of business model componentsthat has an influence onsustainabilityis value proposition, supply chain organization, customer interface organization , and financialmodel (Boons & Lüdeke-Freund, 2013). According to Richardson (2008), one of the business model componentsthat has the most influenceoncompany performanceis the revenueflow, since it can influence profit level and return levelon a company. To achievethe business model designsustainability, competitive excellencesustainability and profit sustainability have to be considered (Teece, 2010). Then, the hypothesis in this current studyis as follows.

H5. Business modelhas a significant influence on sustainable performance of digital start-up companiesin Indonesia.

Based on the discussion above, the conceptual modelin this current studyis shown as follows.

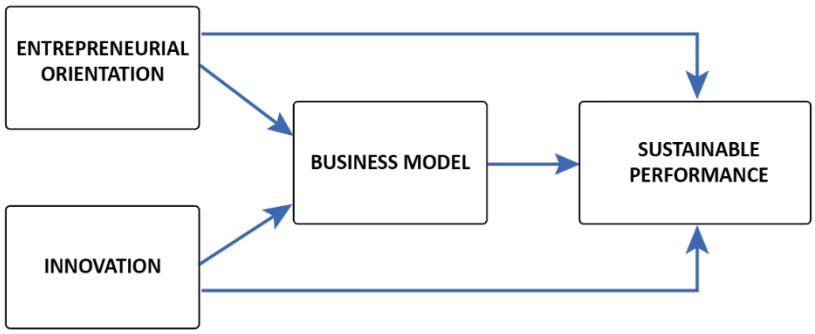

Figure 1: Research Paradigm

Methodology and measurement

This studyused a quantitative approachwith *Structural Equation Model* (SEM). The sampling technique used is the stratified random sampling at a number of regions in Indonesia. The number of sample in this current studyis 206 leadersor founders of digital start-up companiesin Indonesia. According to Shah and Goldstein (2006) the number of samples for SEM is ranging from 200 samples (Shah & Goldstein, 2006) but not recommended to be below 200 (Barret, 2007). This studyinvolvesmultiple companies with some limitations, i.e. each of the companies is less than 5 years old, has a revenueof less than 5 billion Rupiah, and has developed or sold a product that is supported bytechnology (India Gov, 2016).

This studybegan with online data collection, then astatistic testing was performed,the result of the testing was interpreted. Data collection techniquewas done through online questionnaire. The questions on the questionnaireare the representative indicator used to uncover the dimension variables. The responses were classified into six alternatives (Likert scale) using ordinal scale. The use of six scales is meant to reduce bias level on the questionnaire results (Cummins, & Gullone, 2000), besides the six scales has also had a high level of reliability (Chomeya, 2010).The survey resultwas analyzed through both validityand reliabilitytesting to make sure the used questionnairewas appropriate. Then, model appropriatenesstesting and hypothesis testing were performed.Hypothesis testingwas performed with AMOS with a significance criterion of 5%.

The majority of the respondentswere male (87.38%) and under 30 years old (65.05%). The respondentsin this current studywas classified as well educated, with a majority of Bachelor's Degree or higher (82.53%). The percentage shows that the founders or leaders of the start-up companiesin this current studyhave well basic education knowledge to run a company. The detail of the respondent profile can be seen on the following table.

Tabel 1: Profile of The Respondent

Respondent	Frequency (n)	%
Gender		
Male	180	87.38
Female	26	12.62

Age		
< 30 years	134	65.05
30 - 45 years	68	33.01
> 45 years	4	1.94
Education		
Doctoral	3	1.46
Postgraduate	41	19.90
Graduate	126	61.17
Diploma	8	3.88
High school	28	13.59

Sumber: The research result, 2018

Empirical results

This studyperformed the testing using SEM. The testing began with measurement model testingperformed with confirmatory factor analysisto see the appropriatenessof endogenic and exogenic constructsin this current study, thenthe testingappropriateness model was performed. Testingwas also performed to calculatethe path, in order for the direct and indirect influenceson the research model to be identified.

Validity measurement and reliability

Validity measurementcould be performed through looking at the valueof construct reliability(CR) and variance extracted(VE). CR and VE were calculatedby furst calculating the value of standardized regression weight. If the valueof standardized loading(λ)is higher than 0.50 then, it is said to have a relatively strong validityto explain the construct.Meanwhile, construct reliabilityis the measurementthat shows the consistencyof the indicatorthat shows the degreein the variable and variance extracted is the measurementof the number of varianceindicatorextracted by the variable. The CR Value is considered good if the value > 0.70, meanwhile, VE value is considered good if the value> 0.50 (Hair, 2009). The result ofthe measurement model testingfor both exogenic and endogenic constructscan be seen throughthe loading factor coefficient valueon each of the indicators presented on the table below.

Table 2:The result ofExogenic and Endogenic Constructs Measurement

Construct	Items	λ	λ^2	e	CR	VE
Entrepreneur Orientation	Futurity	0.893	0.797	0.203	0.960	0.802
	Proactiveness	0.896	0.803	0.197		
	Analysis	0.912	0.832	0.168		
	Defensiveness	0.897	0.805	0.195		
	Risk-Taking	0.850	0.723	0.278		
	Flexibility	0.923	0.852	0.148		
Innovation	In.Organization	0.806	0.650	0.350	0.915	0.730
	In.Marketing	0.852	0.726	0.274		
	In.Process	0.932	0.869	0.131		
	In.Product	0.823	0.677	0.323		
Business Model	Efficiency	0.787	0.619	0.381	0.747	0.507
	Novel	0.757	0.573	0.427		
Sustainable Performance	Cost and cost reduction	0.779	0.607	0.393	0.869	0.574
	Sales and Profit margin	0.572	0.327	0.673		
	Risk and risk reduction	0.790	0.624	0.376		
	Reputation and brand value	0.805	0.648	0.352		
	Attractiveness as	0.816	0.666	0.334		

	employer					

Source: The research resultwas analyzed with AMOS 23.0 (2018)

The standardized loading value(λ) on all items in the construct of this studyhave the value of>0.50 so it can be declared as valid in forminga construct. The VE and CR values for all of the constructwere valid, since all CRshave the value of> 0.70 and VE has the value of> 0.50. Based on thecalculation, the conditions for standardized loading, CR, and VE were fulfilled, so it can be said that all of the exogenic and endogenic constructshave an acceptable validity and reliability construct(Hair et al., 2010).

The structural model

Measurement modelwas performed to see the appropriatenesslevel oninterrelationshipamongst the four constructs, which are entrepreneurial orientation, innovation, business model, and sustainable performance. Based on the result ofcalculationusing AMOS 23.0 software, the valueof the Goodness of fit criteria from the structural equationmodel in this study was found. Based on thecalculation,the result of chi square= 144.557 with p-value = 0.18the model was considered fit becausethe p-value> 0.05, Goodness of Fit Index (GFI) = 0.927the model was considered fit becausethe GFI value ≥ 0.90, *Adjusted Goodness of Fit* (AGFI) = 0.899the model was considered fit becausethe GFI value ≥ 0.80, *Comparative Fit Index* (CFI) = 0.989the model was considered fit becausethe CFI value ≥ 0.90, *Tucket-Lewis Index* (TLI) = 0.987the model was considered fit becausethe GFI value ≥ 0.90, and *Root Mean Square Error of Approximation* (RMSEA) = 0.038the model was considered fit because the RMSEA value ≤ 0.08. Based on theliterature according to Hair et al.(2010) and Ghozali (2006), all of the appropriateness model valuewere on an acceptable range.

Discussion

The result ofthe inter-constructrelationships calculation is shown on table 4 and the path imaging is shown on Figure 1. In *H1, H2,*and*H3* t-value calculation on each path is higherif compared withthe t-Table of1.97. Therefore, it can be concluded that the*H1, H2, H3, H4,*and*H5*are supported,sincet-count>t-table. All of the construct variable relationshipsare shown as significant, so it has to be calculated which pathis better. Path selectionwas done by comparingthe direct and indirect influencesbetweeneach constructvariableby calculatingdirect*R squared*and indirect*R squared* (De Heus, 2012). Based on thecalculation, itwas foundthat the direct *R squared* value from the entrepreneur orientation to the sustainable performancethroughbusiness model ($R^2_{indirect}$ =0.608) is higherthanthedirect *R squared* betweenthe entrepreneur orientation to sustainable performance (R^2_{direct} =0.001). It was also the same for the direct R squared valuefrom innovationto the sustainable performance throughthe business model ($R^2_{indirect}$ =0.370) is higherthan the *Direct R squared*betweenthe entrepreneur orientation to sustainable performance (R^2_{direct} =0.201). if it is seen from the R squared value, it can be said that the paththroughbusiness modelhas a higherinfluence compared to the directpath without going throughthe business model. It shows that the business modelfunctions as an intervening in the influence between entrepreneur orientation on sustainable performance and innovation on sustainable performance.

Table 3: Path Coefficients andT-Value for the Models

Impact of	**Path coefficients (Direct effect)**	***t-value***
H1: Entrepreneur orientation → business model	0.500 **	6.329
H2: Entrepreneur orientation → sustainable performance	0.169 **	2.453
H3: Innovation → business model	0.340 **	4.223
H4: Innovation → sustainable performance	0.249 **	3.992
H5: Business model → sustainable performance	0.640 **	6.724

Note: ***sig*< 0.01, t-table = 1.97

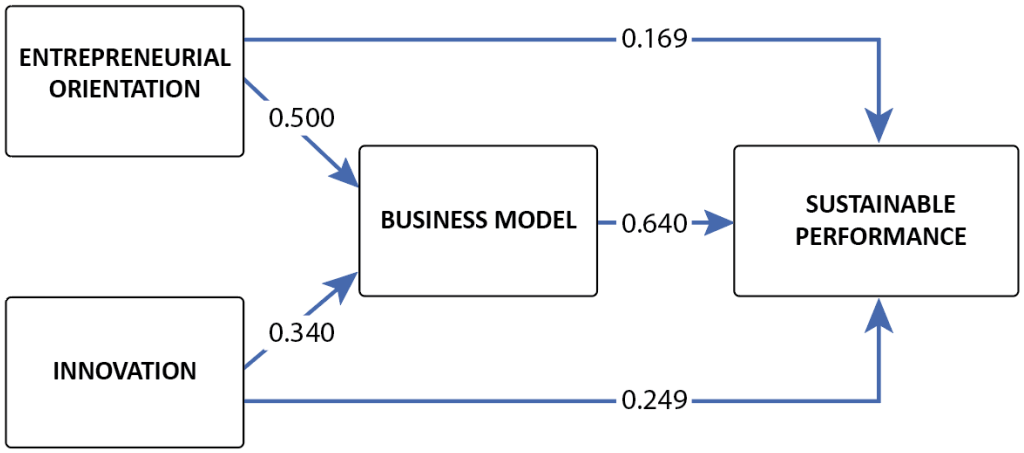

Figure 2: Research Finding

Implication

There are some implicationsreceived from the result ofthis study. First, this studycan be made as a reference to measure the influence of entrepreneur orientation, innovation, and business modelonthe sustainable performance of digital-based start-up companiesin Indonesia. Based on the result ofthis study, it shows that the entrepreneur orientation has a higher influence onthe formation and implementation of business model compared to innovation. It occurs because the start-upcompanies are small enterprises and they usually do not have a good form of organization, so they highly relied on the founder or the leader of the companyin making decision, deciding on a business model, and deicing on the course of the company.

Second, the result oftestingabove shows that innovation, such as product innovation, marketing innovation, organizational innovation, and process innovation, have a more dominant influence onsustainable performancein digital-based start-up companiesin Indonesiacompared with the entrepreneurial orientation.It occurs because the start-up companiesa working on a highly dynamic and ever-changing digital industry, so the ability to adapt is needed througha changeor innovationto be able to fulfill the customer's needs.According to Chang and Lee (2008), innovation has to done by every part of the company to maintain the business growthsustainability and to be able to lead in the market. Therefore, innovationis compulsory and paramount for a company to survive andachievesustainable performance.

Third, the result ofthis study shows that there is a positive significant relationshipbetween business model and sustainable performance,since business modelis a guidelinethat explainshow a company runs, and how to yield revenue, so a business modelis paramount in supporting a company's life sustainability. A companyhas to make a business modeloffersa novelty and efficiency-basedthat can be easily understood by the customerand also to provide financialsupport to assist start-up companiesto survive and develop.The result ofthis studysupports the result of Teece's (2010) study that examines how a companyprovides valuefor the customerthroughbusiness model, and can supportthe achievement of company sustainability. Another studydone by Boons and Lüdeke-Freund (2013), explains that business modelhas an influenceonbusiness sustainability, value proposition, supply chain, customer, and finance, which are the business model componentsthat influencebusiness sustainability.

Fourth,this studyyieldsnoveltyby locating business modelvariable to function as an intervening betweenentrepreneurial orientation and sustainable performanceand also betweeninnovation and sustainable performance.The decision and the formation of business modelis compulsory for digital-based start-up companies, since business modelis important for a new companyor a well-established companyas a guidelineto run a company (Magretta, 2002).The formation of business modelis influenced by innovationin a company and the decision-making is reflected in the entrepreneurial orientation. Therefore, digital-based start-up companiesare expected to always be able to innovate, either in product innovation, process innovation, marketing innovation, or organizational innovation, and also have an entrepreneurial orientationshown by a proactive behavior in finding solution and opportunity, flexibility, and the ability to take risks, abilitymaintain a company, good analysis ability, and the abilitythink forward.

This studymakes effort to provide a significant contributiononthe existing literature, based on theempirical facts related to digital start-up companiesin Indonesia.Start-updigital industry is highly dynamic and the developments are different in each country. In Indonesia, there has not been many studies on a start-up business model. Therefore, this

studycontributes in providing new insights on entrepreneurial orientation, innovation, business model, and sustainable performancein digital-based start-up companiesin Indonesia.

Limitation and direction for future research

The findings in this current studycan be made as a reference to perform further studies on the knowledge is related toentrepreneurial orientation, innovation, business model, and sustainable performance. This studyhas several limitations. First, this studyexamines companieslocated in Indonesia, so there can be interpretational difference on the research resultfor companyoutside of Indonesia. Therefore, this research has to be further reviewed. Second, this studyhas not elaborated in detail about the interrelationshipbetween indicator and dimension on each variable. Based on thereview and the interrelationship constructthat refers to a number of previous studies, we believe that the result ofthis studycan be implemented on a country that has at least the same condition with Indonesia.

There are many things that can influence the formation of a business model, one of them is throughcustomer participation. According to Merlo et al.(2014), customer participationcan alsosupporta companyto make a strategic decision, such as redesigning the business model, and to earn cash from a customer. Besides, the customeralso helps toyieldsustainable valuefor a business. Therefore, future studies are expected to be able to study customer participationas a support in formingbusiness modelto achievesustainable performance.

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