

**ENVIRONMENTAL TURBULENCE, ENTREPRENEURIAL
ORIENTATION AND BUSINESS UNIT PERFORMANCE: EFFECTS
ON DYNAMIC CAPABILITY AND STRATEGIC ALLIANCE
FORMATION AND ITS ROLE TO BUILD SUSTAINABLE
COMPETITIVE ADVANTAGE**

A STUDY ON ONLINE STORE BUSINESS IN WEST JAVA, INDONESIA

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Abstract

This study aimed to confirm and test the effect of three independent variables i.e. environmental turbulence, entrepreneurial orientation and business performance towards dynamic capability and the strategic alliances formation and its role to build sustainable competitive advantage. This study was conducted on e-commerce retail business, known as an online store in West

Java. Total sample was 50 managers of online store representing 5 categories of products, namely: Computer, Electronics & Office Supplies; Fashion, Sport & Health Beauty; Home & Garden; Kids Baby & Toys; and Automotive. Research method used is quantitative survey methods, and the sampling technique used was cluster random sampling and stratified random sampling. The data analysis technique used in this research was a variants-based SEM (Structural Equation Modeling) technique with Smart PLS Ver.3. To analyze the influences of the three independent variable (environmental turbulence, entrepreneurial orientation and business performance) on the dependent variable (sustainable competitive advantage) through two intervening variables(dynamic capability and the formation of strategic alliances) were built 11 partial hypotheses. The results of the verification test found that there are only 4 hypotheses which are not supported i.e. the influence of business performance towards dynamic capability and the influence of environmental turbulence, entrepreneurial orientation and business performance towards sustainable competitive advantage and the 7 remaining are supported.

Keywords: Environmental turbulence, Entrepreneurial orientation, Performance, Dynamic capability, Strategic alliance, Sustainability Competitive Advantage, e-Commerce, Online Store

INTRODUCTION

Online Store is a B2C (business to consumer) e-commerce business model with quite complex activities and of high risk (Laudon, et al, 2014). Though its key activity is in commerce area, that is, buying products from suppliers or producers and then reselling them online by using Internet to end-users or resellers, they are also performing service and production activities such as: assembling products according to consumers' demands (in conformity to the specifications of consumers' demands) and shipping the products to the address the consumers designate. There are online shops that even expand their production by some outsourcing partners. Online shops are the backbone of e-commerce system, where their success impacts the progress of e-commerce ecosystem as a whole, including payment gateway, platform e-commerce, supply chain, digital marketing, etc.

At present, there are few researches focused on understanding how online shop, one of the e-commerce business models with a relatively low margin (Chen and Chen & Zhang, 2015: p.1411), may successfully develop sustainable competitive advantage in a very intense competition. The literature of researches on e-commerce is generally dominated by those researchers who focused on consumer motivation and company to be involved in e-commerce. For example: Mukhopadhyay et al (2008), Zhang et al (2014), Napompech (2014) and Wang et

al (2015) are researchers who focused on studying consumer motivation to be involved in e-commerce in connection to security, confidence, convenience, price, etc. On the other hand, the researchers who focused on studying the motivation, attitudes, and behaviors of company managers in adopting e-commerce are, among others, Thomas et al (2010), Halawani et al (2013), Tseng et al (2015) and Want et al (2015).

E-commerce business in Indonesia is rapidly developing currently, and some experts and the findings of research agencies even predict that e-commerce in Indonesia will be promising to the greater extent in the future. Unsurprisingly, in the last years a lot of big Venture Capitals (VCs) like Rocket Internet, CyberAgent, East venture, and IdeoSource have invested in Indonesia-based e-commerce companies. Some of them are giant companies such as Lazada and Zalora, Berrybenka, Tokopedia, Blanja, Bilna, Saqina, VIP Plaza, Ralali and much more. They are examples of e-commerce companies successful in taking opportunity of burgeoning e-commerce markets in Indonesia. Some supporting facts of the development of e-commerce in Indonesia are, among others:

- a. The findings of eMarketer research (2013), describing that: 1) Internet users have been growing from 72.7 million in 2013 to 102.8 million in 2016, or from a 29% penetration on the population to 39.8%, 2) The proportion of population using smartphone jumped from 4.8% in 2011 to 33.8% in 2017, 3) During 2012-2016, IT market in Indonesia has been growing 18% annually. Total market value reached US \$ 11.5 bn. The largest growth has been in computer hardware sector, estimated approximately US\$ 8.5 bn in 2016. 4) The growth of Indonesian e-commerce market is one of the highest in the world, estimated growing from US\$ 4 bn in 2012 to US\$ 25 bn in 2016, and the number of users-buyers online is estimated 49 million.
- b. World Bank Report (2013): Indonesia's population falls into a category of the youngest in the world, where a half of the population are under 30 year old and 29% are under 15, who are the digital generation with great potential to be the consumer of shopping online.
- c. The findings of BCG research (2013) concluded that the level of consumption in Indonesia is growing significantly, based on: 1) The number of households that spend less than Rp1.5 million monthly decreased. There was a high increase in people's net income and hence a jump in household expenditures, particularly in middle-upper classes. 2) The number of households with income above Rp 2 million monthly would increase from 74 million (2012) to 141 million (2020). 3) Consumer class with income above US\$ 3,600 would increase from 45 million today to 135 million in 2030. And 4) Consumer expenditure is projected to grow by 7.7% per year from 2010 to 2030. Indonesia's consumer sector is projected US\$ 1.1 trillion in 2030.

- d. According to *Startup Bisnis Indonesia (2015)*, the number of sales online in Indonesia has been growing significantly, driven by: 1) The number of B2B2C platform providers both at local scale and international scale that make it easier to open Online Store quickly, practically, and freely is increasing. 2) Availability of some alternative payment systems that facilitate the users in making payment, e.g., by a *cash on delivery* (COD) model, is very helpful for those consumers with no banking account such as credit card or debt card. 3) The consciousness level of Indonesian companies to adopt e-commerce currently has tended to be increasingly higher, as could be seen from the number of SMEs listed in both B2B2B and B2B2C marketplaces, growing more than 10% monthly.

The preceding data and information show only the potentials and opportunities of the development of e-commerce. However, according to the business profile data of Online Store found from the database of www.xyz.com (the company name requested anonymity) one of the largest B2B2C e-commerce providers in Indonesia, in fact from 2,556 online shop located in West Java in two years (September, 2013- August, 2015) there are only around 6 % of the online shops that have been enjoying significant increases in orders from time to time and their business scales have risen from small scale enterprises to middle scale ones. Around 9 % are developing slowly, 36% fluctuating, 31% constant, and 18% initially developing but then declining and even closed.

The differences in the achievements of the businesses as described above are due to the difference in the entrepreneurial competence of Online Store management in responding to the turbulences in their surroundings. The business environment of e-commerce is highly dynamic and competition is relatively intense or even "*hypercompetition*". Those companies with some competitive advantages today wouldn't survive for a long time. Information in what is so called "information era" nowadays has made knowledge so easy to access, and individuals are ever more creative and capable of creating anything new quickly. New models of any products are emerging quickly, and products are more and more varying. Only creative and innovative companies are capable of dominating markets. Companies shouldn't be complacent about their excellent performance in the past, because their environment is ever changing, people lifestyles are shifting, and market demands are changing as well.

To determine what are the most dominant factors in increasing the competitive advantages of Online Store in Indonesia, we may refer to *Global Competitiveness Index Indonesia* (GCI) issued by WF, 2014. There are three key factors that lead to the low competitiveness of Indonesian companies, namely: the lack of technology dexterity, inefficiency in managing resources, and being less innovative. The three factors have become the

weakness points of most companies in Indonesia, including those that are specializing in Online Store business. In the technology and information areas nowadays, technology dexterity is a success key of companies. There are lots of evidences indicating that technology gives companies *multiplier effects*, e.g., increasing quality, efficiency, and innovation (Priyono and Syarbini, 2014). The life cycle of technologies is increasing ever more, with very varying capabilities and prices. A mistake in choosing a technology may risk the survival of the company's business in the future. Therefore, companies' management should be proactive in searching for diverse information and in anticipating the needs of their business in the future, and also innovative and brave in risk taking. In the other words, a high entrepreneurial orientation level is required. Mukhopadhyay (2008) developed a new hypercube model of E-commerce innovation, explaining that impacts of E-commerce innovation should be based on both internal factors like technological component and business model and external factors like industrial partnerships (Laudon, et al 2014). Based on the finding, the types and details of impacts caused by E-commerce innovation have been discussed in the study

In addition, the presence of technology also often requires a change in both existing business process and working ethos. Selecting and searching for appropriate technology need a sensing capability in order to be capable of meeting business demands now and in the future. It needs to conduct a research and benchmarking (Rufaidah and Sutisna, 2015) of other companies with success stories in implementing their technology to rise their business competitiveness. To gain efficient and effective results, companies need capability to integrate their internal and external resources and then to carry out business transformation in response to both internal and external changes. In the other words, a dynamic capability is required. According to Teece et al. (1997), Wang and Ahmed (2007), Helfat et al. (2002) in Dynamic Capability View (DCV), dynamic capability plays a crucial role in reorganization, especially in a very dynamic environment nowadays. Dynamic capability is defined as a higher capability that enables companies to deal with the "resource" gap between their existing resources and the new ones desired. It facilitates both creation of new capabilities and learning. Therefore, dynamic capability becomes the most suitable approach in an increasingly dynamic competition environment today.

Not all companies in Indonesia have financial capability to make investment. According to BPS data (2014), the majority of companies in Indonesia are small and middle enterprises (over 98%), known as having lots of limitations. According to Sucherly (2010), a company with inferior resources may get superior ones by adopting a cooperative strategy so as to gain some cooperative advantage. Technology access and transfer to companies are challenges Indonesia

still faces. The role of incubator, research institutions, and collaboration between research institutions and universities and business world for technology transfer should be developed. The partnership collaboration or strategic alliance with different institutions as described above, including partnership with big corporations or among other companies, domestic- and foreign-based, has to be encouraged for technology transfer. Lots of such practices have been proceeding successfully in some advanced countries, like USA, Germany, England, Korea, Japan, and Taiwan. Cluster development models should also be developed, because through such models there will be technology transfer to and among companies.

Based on the preceding description, it could be concluded that the success of an Online Store in building its sustainable competitive advantages depend heavily on its entrepreneurial orientation level, dynamic capability, and competence of forming a strategic alliance.

Objective of the Study

- 1) To the extent of which the influence of environmental turbulence on dynamic capability?
- 2) To the extent of which the influence of environmental turbulence on strategic alliance formation?
- 3) To the extent of which the influence of environmental turbulence on sustainable competitive advantage?
- 4) To the extent of which the influence of entrepreneurial orientation on dynamic capability?
- 5) To the extent of which the influence of entrepreneurial orientation on strategic alliance formation?
- 6) To the extent of which the influence of entrepreneurial orientation on sustainable competitive advantage?
- 7) To the extent of which the influence of business unit performance growth on dynamic capability?
- 8) To the extent of which the influence of business unit performance growth on strategic alliance formation?
- 9) To the extent of which the influence of business unit performance growth on sustainable competitive advantage?
- 10) To the extent of which the influence of dynamic capability on sustainable competitive advantage?
- 11) To the extent of which the influence of strategic alliance on sustainable competitive advantage?

LITERATURE REVIEW

Environmental Turbulence (ET)

Environment of a business organization is, according to Mintzberg (1973), “a pattern of all conditions and external influences that affect the life and development of the business organization”. Meanwhile, Eisenhardt and Martin (2000) define it as “a situation that is subject to substantial, continuous, uncertain, unpredictable changes”. A turbulent environment is one where we cannot predict the results of our actions. Stigtnier (2002) compiled the concepts of environment according to the results of experiments to understand how companies should position themselves to succeed in even a turbulent environment (or in certain environments). A turbulent environment is indicated by being “difficult to understand” and needs a flexible organization to respond promptly and adequately to stay competitive. Stigtnier concludes that a turbulent environment stands in a situation that is subject to continuous, substantial, uncertain, unpredictable changes. It is important to distinguish between turbulence and rapid change. The latter is predictable, while the former is similar to uncertainty. According Rosca and Moldoveanu (2009), “turbulence is major, fast, discontinuous changes that organizations go through”. It is not incremental changes. Usually, turbulence is more radical, non-linear, and frequently occurs. Johnson and Scholes (1989) define turbulence as consisting of two parameters: dynamics and complexity. Hedlof & Janson (1999) borrow Andrews’ concept (1992) suggesting that the environment of an organizational business is “a pattern of all conditions and external influences that affect the life and development of a business organization”. Based on the preceding description, the definition of turbulent environment adopted in the present research was: “Turbulent environment comprises situations that are subject to continuous, substantial, uncertain, unpredictable changes”.

The dimensions used in measuring an environmental turbulence, according to Ansoff (1980), consist of: changeability of the market environment, speed of change, intensity of competition, abundance of technology, discrimination by customers and pressures from governments and influence groups. Meanwhile, according to Nashirudin (2014), the dimensions of ET measurement consist of: Regulatory environment, Technology environment, Competitive environment and Customer environment. Considering that e-commerce businesses are information technology based, which are of the same characteristics as that of cellular business (Nashirudin, 2014), the constructs developed in the present research adopted the researches by Nashirudin (2014), consisting of: 1) Market environment turbulence, 2) Technology Environment Turbulence, 3) Competitive environment turbulence, and 4) Regulatory environment turbulence.

Entrepreneurial orientation (EO)

The definition of entrepreneurial orientation according to Lumpkin and Dess (1996: 135) is anything that leads to process, training, and activity in a decision making on the development of a new product. Moreover, Khandwalla (1977: 424) defines EO as predisposition of top managers to take risk when making a decision, in opposition to very cautious, conservative, and stability-oriented decision making styles. Meanwhile, according to Drucker (2006), entrepreneurial orientation is a predisposition of corporate management to take calculated risks, to be innovative, and to demonstrate proactive nature. From some definitions above, in an e-commerce context, where trust and discipline are crucial for operating e-commerce, the definition used in the present research is as follows: "Entrepreneurial orientation is the predisposition of corporate management to take risk in developing the capability of their organization proactively and innovatively and to show integrity and discipline for execution." Furthermore, for the dimension of EO measurement, the writer proposed two additional dimensions, namely integrity and discipline for execution. Thus, the dimension of measurement used in the present research consisted of 5 (five) dimensions, namely: (1) Innovativeness, (2) proactiveness, (3) risk taking, (4) integrity, and (5) discipline for execution.

Business Unit Performance (BUP)

Performance is a term generally used for parts of or the whole actions or activities of an organization for a specified time period in reference to standar amounts such as earlier or projected costs, on the bases of efficiency, managerial responsibility or accountability, and the like. Meanwhile, according to Kamusbisnis.com, "Business unit is logical elements or segments of a company (e.g., accounting, production, and marketing) that represents certain business functions, and holds a specific position in the organizational chart, under the domain of a manager. It is also called department, division, or functional area". Moreover, the definition of organizational performance or business unit performance according to Venkatraman (2015) is: "an indicator of achievable performance and reflects the success of a manager/entrepreneur". Venkatraman (2015) points out that the performance of a business or company unit is crucial in organisasional development and in the performance of business units, referring to the achievement or performance of a business unit in a specified time period. The performance of a business unit can be seen from its sales, profits, return of capital, turnover, and market share it achieves. Moreover, the performance of a business unit can be found out from how a corporate management responds to its external and internal conditions, where it can determine, by using certain yardsticks, what are turbulence level and business level that it can anticipate. Grounded in diverse opinions above, the definition of business unit performance in the present research

was: "Business unit performance is a yardstick of the achievement of a business unit as seen from the growth of business performance indicators in a specified time period relative to that of previous ones".

Key Performance Indicators (KPIs) are a series of indicators of key performance that measure the success level of an individual or an organization in implementing his/her or its duties or functions (Kaplan dan Norton (2004). Or, Performance Indicators are a measure of success that indicates the achievement level of an objective, goal, or activity. Among them are input, process, output, and outcome indicators. Input indicators include human resources, facilities-infrastructures, finances, policies, information, etc. Process indicator is the monitoring of the work in progress. Output indicator is the measures of results achieved, including knowledge and changes in behaviors as a result of the processes that have been carried out. Accordingly, output indicator is also known as effect indicator. Lastly, outcome indicator is one employed to determine the effect of a policy implementation. Indicators are a variable used either directly or indirectly to measure changes in a condition. Performance measurement has been well known for its importance in affecting the effectiveness of a managerial process, and its progress has been supported by a strong will among companies in Balanced Scorecard (Kaplan and Norton, 2004) and self-assessment of quality performance, such as EFQM, Malcolm Baldrige, and ISO. However, performance measurement in e-commerce companies is still less established than that in traditional ones. In their initial phase of development (dotcom era), e-commerce companies paid less attention to performance measurement because businesses were evaluated based on expectations, such as expectation of growth and efficiency, rather than actual outcomes. From literature, the evolution of performance measurement in online retails can be divided into three phases according to the focus of measurement. The first phase focuses on the measurement of site popularity. Popularity is an indicator of success in marketing to introduce online stores to people as potential customers. The measures of web traffic have been used to evaluate the site's popularity. Second phase measures customers' experiences in shopping online.

The focus of business performance measurement was held in the present study. Performance measurement was made operational by referring to a number of multidimensional performance indicators that online retails measure to evaluate the performance of their business. These consist of 20 indicators developed from literature (Hayes, 2015) and pretested to practitioners and academicians. The indicators were classified into 4 (four) dimensions of measurement, namely: 1) financial performance, 2) marketing and customer performance, 3) process performance, and 4) web performance.

Dynamic Capability (DC)

The definitions of dynamic capability can be classified into three groups, i.e., those definitions that put emphasis on competence, resource, and combination of both. The researchers that put an emphasis on competence include: Cao (2014), Rufaidah & Sutisna (2015), Teece (1997) and Zolo & Winter (2002). Whereas resources-based researchers include: Eisenhart and Martin (2000), Helfat et al. (2002). Meanwhile, there are definitions that combine competence and resources, namely, Kogut & Zander (1992) and Wang & Ahmed (2007). The definition of Dynamic Capabilities emphasizes the organizational and strategic routines that enable companies to accomplish an arrangement of new resources. Much the same as the definition based on “the combination of resource and capability” is organizational processes that enable an organization to obtain knowledge resource and to make new utilities of the resources. In e-commerce, the definition proposed in the present research inclined to adopt a competence-based definition, because competence is the core of a company’s capability in retaining its competitive advantages. Tangible resources are relatively easy to imitate by competitors, while competence is a scarce, hard-to-imitate asset. E-commerce business is one very sensitive to any change in environment, and different situations need different competences. Thus, companies are demanded to regularly renew their competence in line with environmental development. From some competence-based definitions above, the definition by Rufaidah & Sutisna (2015) is more comprehensive and combines the definitions proposed by Cao (2014) and Teece et al. (1994). Therefore, the definition of DC employed in the present research, adopted from Rufaidah & Sutisna (2015), was as follows: “Dynamic capability is the capability of a company to renew its competence by identifying opportunities and threats (sensing), development of new habits to seize opportunities (seizing/shaping) and formation of new system (reconfiguration) so that the company is capable of achieving competitive advantage over time and survives any turbulence in its business environment.” Therefore, the dimensions of DC used in the present research consisted of: 1) Identifying opportunities and threats (sensing), 2) shaping new practices to seize opportunities (seizing / shaping), and 3) improving a new system (reconfiguration).

Strategic Alliance Formation (SAF)

According to Spekman, et al (2000), strategic alliance is a beneficial strategic relationship between those independent companies that share roles so that they are interdependent one another in order to achieve the goal of each for mutual benefits. Meanwhile, according to Parkhe (1993: 794), strategic alliance is an agreement of cooperation between some companies, involving both flows and relations of resource utilization and/or organizational

management structure, together meeting individual goals in conformity with the corporate mission of each sponsor. It is an agreement that binds two or more organizations on some resources in a bid to develop mutual business opportunities (Nevin, M. 2014, Jeje 2014). Furthermore, it was said that a strategy of strategic alliance can be applied in managing resources and interdependently and symbiotically or competitively (Wheelen and Hungar, 2015: p.125). According to Isoraite (2009: 39), a successful alliance formation should do 5 (five) stages of process, namely: 1). Strategy development. A strategy development involves a study of the feasibility, goal, and reason of an alliance, focusing on major issues and also challenges and development of resource strategy for production, technology, and people. 2). Selection of Partners: The selection of partners involves analyzing potential partners' strengths and weaknesses, developing a strategy to accommodate the managerial styles of all partners, setting the criteria of appropriate partner selection, understanding the motives of partners in joining the alliance, and overcoming the gap of resource capacity that the potential partners may own. 3). Contract negotiation: a contract negotiation includes: determining whether all partners have realistic goals, forming a high caliber negotiator team, defining the contributions and benefits of each partners and protecting information proprietary, handling clause termination, penalty on poor performance, and highlighting to the extent of which arbitration procedures are determined clearly and understood. 4). Alliance Operation: An alliance operation includes: showing senior management commitment, finding high quality resources allocated specially to the alliance, combining budget and resources with strategic priorities, measuring and granting rewards to alliance performance, and assessing alliance performances and achievements. 5). Alliance Termination: an alliance termination includes: terminating alliance, e.g., if its goal has been met or unmet, or when the pairs adjust their priorities or reallocate their resources to other interests. From the description above, the definition of SAF in the present research is: "Strategic Alliance Formation is a process of developing a mutually beneficial formal cooperation between two or more independent companies in attempt to build competitive advantage, beginning with developing a alliance strategy, selecting appropriate partner(s), negotiating and preparing a contract, implementing and keeping cooperation, and evaluating and terminating the cooperation". Thus, there were five dimensions used in the present research to measure SAF competence viz.: 1) Formulation of alliance strategy, 2) Selection of partner(s), 3) Negotiation and contract making, 4) Alliance operation, and 5) Evaluation & termination of contract.

Sustainable Competitive Advantage (SCA)

According to Day & Wensley (1988), the essence of competitive advantage is a unique combination of resources and capability. Moreover, to sustain a competitive advantage, the

company must have specific resources and capability (company specific). Meanwhile, according to Barney (1991, p.99) as long as the competitors haven't successfully imitated a company's resources there will be sustainable competitive advantage (SCA). Hoffman (2000) offers a conceptual definition of SCA: "a company is said as having sustainable competitive advantage if it pursues a value creating strategy that isn't simultaneously pursued by its existing or potential competitors and when the other companies are incapable of increasing their advantages from the strategy. Currently, sustainable competitive advantage concept begins to be debated. The first to doubt sustainable competitive advantage concept is McGrath (2013), in his book "The End of Competitive Advantage: How to Keep Your Strategy Moving as Fast as Your Business", Harvard Business Review, 2013. McGrath maintains that in the very complex business era today, it is very hard for companies to retain their competitive advantage sustainably but rather just a "transient advantage". McGrath's (2013) opinion on the demise of competitive advantage is based on a case study. However, theoretically, it is convincing. Of course, all companies want to have a sustainable business, but the problem is how to realize it. Corporate resources and capability are indeed temporary or transient and not sustainable, because even a company is successful in a certain period of time to attain valuable, scarce, hard-to-imitate, and non-substitutable resource and capability but it cannot retain them for a long time. Business environment is changing rapidly, and thus what a company needs is capability to renew its resource and capability consistently in conformity with business demand. According to Coyne (1986), there is no criterion of what resource and capability a company has to make available. Grant (1991) sees competitive advantage from the aspect of capability to gain profits. That is, sustainable competitive advantage can be achieved if the company is capable of gaining profits sustainably. Tang and Liou (2010) see it more comprehensively than Grant (1991) does, in that they see it not only from the aspect of capability in gaining profits but more comprehensively, that is, the achievement of superior performance as measured from the aspects of operational performance and capital leverage. From some definitions above, the present research offered the definition of online shop company as follows: "SCA is a strategy pursued by a company to be always prepared to renew and enhance its capability simultaneously and capable of seizing any opportunity as the impact of environmental turbulence even when the company is being in an excellent performance condition. Tang and Liou (2010) measured sustainable competitive advantages by 4 (four) dimensions: relationship with customers, relationship with suppliers, intellectual property, and competence of managing assets. The indicators of measurement that Tang and Liou (2010) used are objective indicators including operational performance indicators and capital leverage to achieve sustainable superior performance.

In business world of Indonesia, it is undeniable that frauds are widespread, and e-commerce business isn't an exception. Therefore, the dimensions of SCA measurement in the present research consisted of 5 dimensions which, if combined, become a valuable, scarce, inimitable, non-substitutable capability, namely: 1) Capability of developing customer relationship, 2) Capability of developing relationship with suppliers, 3) Management ability, 4) Intellectual property and 5) reputation.

RESEARCH MODEL AND HYPOTHESES

Relationship between Environmental Turbulence and Dynamic Capability

Environmental turbulence is related to uncertainty or difficult-to-predict discontinuity in an industry. Turbulent environment is indicated by uncertainty, unpredictable changes, and the lack of patterns. Faced with business environmental turbulence and so rapidly changing dynamics, a question arises on what actions should be taken to anticipate them (Stigter, 2002). There are two basic alternatives an organization may select from, namely: the organization brings about evolutionary changes, in stages, and continuous improvement, or through revolutionary, radical, and dramatic reengineering. In a relatively stable environmental condition, where economy is undersupply, the number of competitors in business world is relatively small and uncertainty level still low, a fat, rigid organization may still survive. However, in hard times, e.g., where there are turbulent, chaotic environment, uncertainty and unpredictability, oversupply and overcapacity, increasingly intense competition, and occurrences of long-lasting economic crises and turbulences, organizations seek to introduce drastic changes (reengineering). Under such conditions, human resource and capability advantages cannot be maintained in a long time. Companies are required to have new core competences in accordance with the demands of changing environment. Not a few organizations should streamline and transform themselves into lean organizations because their current employees are considered as burden and inefficient. This occurs because they fail to take anticipative measures and to develop human resources that are relevant in dealing with changes. Though the measures may enhance the efficiency and effectiveness of the organizations but they fail to take advantage of available opportunities (Rosca and Moldoveanu, 2009).

Based on the description above, it could be concluded that dynamic capability plays a significant role in responding to environmental changes. That is, dynamic capability level is related to environmental turbulence. Accordingly, the following hypothesis was formulated:

H1: The higher the level of perception on environmental turbulence, the higher the dynamic capability of a company.

Relationship between environmental turbulence and Establishment of Strategic Alliance

According to Aldrich (1979), in a turbulent industry, to reduce risks of uncertainty, companies incline to turn to other partners for resources and new capabilities in responding to changes. Through an appropriate alliance of partners, companies can proactively adapt their resources to fit their new environment (Kandemir et al., 2006). In the new environment, the consequences of terminating an alliance tend to be less problematic, and thus companies also tend to decrease conflicts with their alliance partners. They prefer a destructive-active respond strategy. Conversely, a stable environment is more predictable, and companies have more chances to explore their alliance partners' resources. In such environmental condition, alliance partners prefer a strategy of responding that may minimize conflicts (Kandemir et al., 2006). Therefore, they are more likely to prefer a constructive-passive strategy. Based on the description above, the following hypothesis was formulated:

H2: The higher the level or perception on environmental turbulence, the higher the capability of strategic alliance formation.

Relationship between Environmental Turbulence and sustainable competitive advantage

Amid business environmental turbulence, the formulation of long term strategy that has been developed by a company may be changed by sudden actions of the company. These actions are all intended to anticipate any forms of rapidly occurring internal and external changes. Those companies that aren't prepared to anticipate the turbulence and chaos in their business environment would not exist and not survive in competition. In other side, however, a lot of companies tend to forget their goal of attaining sustainable competitive advantage in the future and instead are preoccupied in measures of anticipating turbulence of existing uncertainty. They incline to prioritize the interest of surviving in economic turbulence.

There are lots of empirical evidences indicating that companies couldn't ignore the impact of environmental change on their business survival. The power of environmental changes may drive a company to change its mission, business scope, market target, culture, acquisition strategy, alliance, contextual relations, political lobbying, legislative, and structural changes. They are all brought about to keep its competitiveness. The same applies in those changes that are related to consumers, distributional channels, competitors, and market structures in marketing domain. Many researches on business strategy focused on this variable. It indicates that companies should change, and their resources and capabilities should be capable of adapting to the demands of environmental changes. In marketing activities, marketing has to be capable of deciding which groups of consumers to serve, and also the specification of competitors to meet. In addition, it would be faced with increasingly intense

competition, turbulence of technological advancement, and changes in regulations (Helfat et al., 2002). It may affect organizational performance and cause competitive advantage less valuable or even excessive. Accordingly, companies should promptly respond and rethink what capability they should build suggests that some companies that better deal with environmental turbulence than others lead to difference in their capability in facing with their environmental turbulence. Based on the discussion above, the following hypothesis was formulated:

H3: The higher the perception on environmental turbulence, the lower the achievement in attaining sustainable competitive advantage.

Relationship between Entrepreneurial Orientation and Dynamic Capability

Entrepreneurial orientation may be a method of seeing how corporate management can disclose and exploit existing opportunities that come externally and internally. Wiklund and Shepherd (2005) point out that by investigating entrepreneurial orientation we can explain the existence of managerial processes that enable a company reach a more excellent position than its competitors, because entrepreneurial orientation facilitates the company to act according to initial signs originated in the company's internal and external environment (Lumpkin & Dess, 1996). Entrepreneurial orientation leads to the strategic orientation of the company, including the aspects of style, methods, and specific entrepreneurial decision making practices. Entrepreneurial orientation may be an important way of measuring how a company is organized, and to be a contribution of entrepreneurship in developing a company's dynamic capabilities.

According to Wiklund and Sheperd (2005), entrepreneurial orientation can "enrich the benefit of knowledge-based resource performance of a company by paying attention to the utilization of the resources to discover and exploit opportunities". The relationship between entrepreneurial orientation and its determinants is still investigated in some studies. Some determinants of an entrepreneurial orientation come from the external environment the company is operating in, and from its organizational capability variables. However, some experts in entrepreneurial orientation focus more on how a company is organized to do entrepreneurial endeavors, and pay attention on the role of knowledge-based resources on performance (Wiklund & Sheperd, 2005). The variables always present in each company. They are often not-yet-utilized productive services. However, in line with changes in knowledge on management, unique productive opportunities may be created. An entrepreneurial orientation may be a way of seeing how a corporate management can discover and exploit available opportunities. Based on the discussion above, the following hypothesis was formulated as follows:

H4: The higher the level of entrepreneurial orientation, the higher the dynamic capability of a company.

Relationship between Entrepreneurial Orientation and Strategic Alliance Formation

There are lots of evidences indicating that it is very difficult to successfully dominate a market alone (Jeje, 2014). In the globalization era today, enhancement of corporate competitiveness cannot be accomplished by a single company because there are many limitations the company faces, such as limitations in human resources, capital, assets, information, knowledge, and skills. Though it is described theoretically that strategic alliance plays a significant role in improving a company's competitiveness as described above, the phenomenon in the field indicates just the opposition. There are still a lot of companies uninterested in forming alliance, especially Indonesian ones. Tambunan (2010), who investigated the implementation of strategic alliance especially to middle-scale enterprises, found no more than 50% Indonesian companies are interested in forming alliance(s). It could be concluded that EO has some positive influence on SAF. Based on the preceding description it could be formulated a hypothesis as follows:

H5: The higher the entrepreneurial orientation level of an online shop's management is, the higher the success of strategic alliance formation will be.

Relationship between Entrepreneurial Orientation and Sustainable Competitive Advantage

The results of Samoedra and Setiawan (2015) reveal that entrepreneurial orientation has significant influence on sustainable competitive advantage where there is the influence of an entrepreneurial orientation that is innovative, proactive, and brave in taking risks that raises corporate competitiveness position. The entrepreneurial orientation will initiate a change to consistently meet customer desires, including how to spend the company's resources, both tangible and intangible. The sustainable innovation that may affect the utility of assets is used to form a core competence, which subsequently becomes a source of competitive advantage. Based on the preceding description, it could be formulated a hypothesis as follows:

H6: The higher the entrepreneurial orientation level is, the higher the success of sustainable competitive advantage formation will be.

Relationship between Business Unit Performance and Dynamic Capability

Those companies that have been surviving for tens of years are generally sensitive and adaptive to the environmental changes. They continually transform themselves ahead of the changes. However, it isn't easy for a company to decide a timing of making an appropriate change. A decision on when it is necessary to change is of the same importance as a question on what are to be changed and how much. There are several strategies on the timing of making a change: 1) Making change when everything is going on smoothly or the performance of a

business unit is under a superior condition. Those organizations that prefer this choice are the leaders that are anticipating pressures ahead and make changes as a usual thing in foreseeing and as a self-preparation. Those companies that adopt this philosophy strongly believe that if they don't routinely change themselves then they will be at risk of being complacent and hence stagnant. 2) Making changes when the results of performance are mediocre. They are made when there are some problems but are not very harmful. Such situation emerges because the management perceived that there are something to deal with, but the need to do it is not urgent. For example, It will be better to determine which machines need a timely maintenance." Or, "If I know how long it is needed for a set-up of each product, I would be more capable of setting a production schedule." 3) Making changes due to a serious crisis. For example, some changes needed to avoid the loss of competitive advantage or loss of key customers, or to meet the requirements of Public Accounting Standards Agency.

Nowadays, a lot of companies where having an excellent performance fail to survive because they fail to read, catch, and identify the signals of change amid of dynamic changes. Thus, when a change actually occurs, they are unprepared to face it, because their internal structure is indeed too late and incapable of making adjustments. Some companies fail to realize that waiting until a new crisis comes out before making a change is often more costly. Making a change before "problem" or "crisis" really occurs is equally difficult. Some people have a stance that "If it is not in fault, there is no need to fix it! From the description above it could be concluded that a company that of an excellent performance tends to not run well its dynamic capability. Or a hypothesis can be formulated as follows:

H7: The higher the performance of a business unit, the higher the dynamic capability of a company.

Relationship between Business Unit and Strategic Alliance Formation

According to Johnson (1999), developing cooperation is a crucial requirement to survive in a more competitive environment. In general, those companies that pursue an alliance strategy are inclined to choose the companies involved in a supply chain relationship with them and of reliable capability. This is understandable, given that basically companies develop more close cooperation with those other companies whose they have relationship with and which support the success of the success of their company. Moreover, those companies with excellent performance are inclined to have reliable capability to support their business progression. In online store business, a supply chain alliance can be built by two methods, namely a forward alliance with distributors such as resellers and dropshippers, and a backward alliance, i.e., with suppliers and producers. The choice depends on the companies' consideration of needs, such

as joint resources, mutual role, and corporate capability. The corporate capability can be seen from the capacity of the companies to produce excellent performance.

From the discussion above it could be concluded that performance has an influence on the motivation of partners to develop cooperation. That is, those companies with poor performance find it difficult to get partners. Thus, the following hypothesis could be formulated:

H8: The higher the performance of a business unit, the higher the success of a strategic alliance formation

Relationship between a Business Unit's Performance and sustainable competitive advantage

Marcus (2005) maintains that sustainable competitive advantage is a goal of a managerial strategy or a performance above average industry for 10 years or more. Some companies have better performance than their competitors for a short term period, but few are competitive continuously in a significant time period. Day & Wensley (1988) says that there are two footholds in attaining competitive advantage, namely: resource advantage and position advantage. In the research it was proved that a company's competitive advantage is affected by corporate performance.

Corporate performance is a measure of the achievement of a company measured at a specified time period. The results may be considered as the value of each activity that has been planned and implemented to be capable of identifying whether the strategy pursued is appropriate or just to the contrary. Pelham & Wilson (1996) define corporate performance as the success of a new product and market development where corporate performance can be measured by the growths in sales and market share.

Strategic integration is a corporate strategy for managing the factor of sustainable relationships to achieve expected results (Johnson, 1999). The implementation of a strategy of integration between some companies can enhance a sustainable relationship to achieve competitive advantage.

The end of a sustainable relationship is the improvement in the corporate performance. The whole benefit of implementing a strategy of integration between some companies is the enhancement of corporate performance (Johnson, 1999). Based on the discussion above, the following hypothesis could be formulated:

H9: The higher the performance of a business unit, the higher the success of building sustainable competitive advantage.

Relationship between Dynamic Capability and Sustainable Competitive Advantage

It was indicated that fundamental changes in business environment make some companies find it difficult to retain their competitive advantages. The current business strategy is no longer capable of facing the ever changing competitive situation and business environment. Therefore, business strategies are forced to change as well. However, it turns out that the newly applied strategy cannot be always successful in regaining the success of competitive advantages. This change has triggered some changes in business strategies. On the other side, an excellent business strategy is generally based on core resources and core competences. That is, this change also makes excellent resources and capabilities outdated. This fact proves that, in order to regain competitive advantages, it needs to renew the aspects of excellent resources and excellent capabilities. On the other side, dynamic changes require competence to renew resources and capabilities rapidly (dynamic capability). Dynamic capability is a capability to form, reform, configure, and reconfigure corporate capabilities so that the company can deal with environmental changes properly. Teece et al. (1997) suggest that there is a significant correlation between dynamic capability and competitive advantage. Based on the preceding description, it could be formulated a hypothesis as follows:

H10: The higher the dynamic capability is, the higher the success of sustainable competitive advantage will be.

Relationship between Strategic Alliance Formation and Sustainable Competitive Advantage

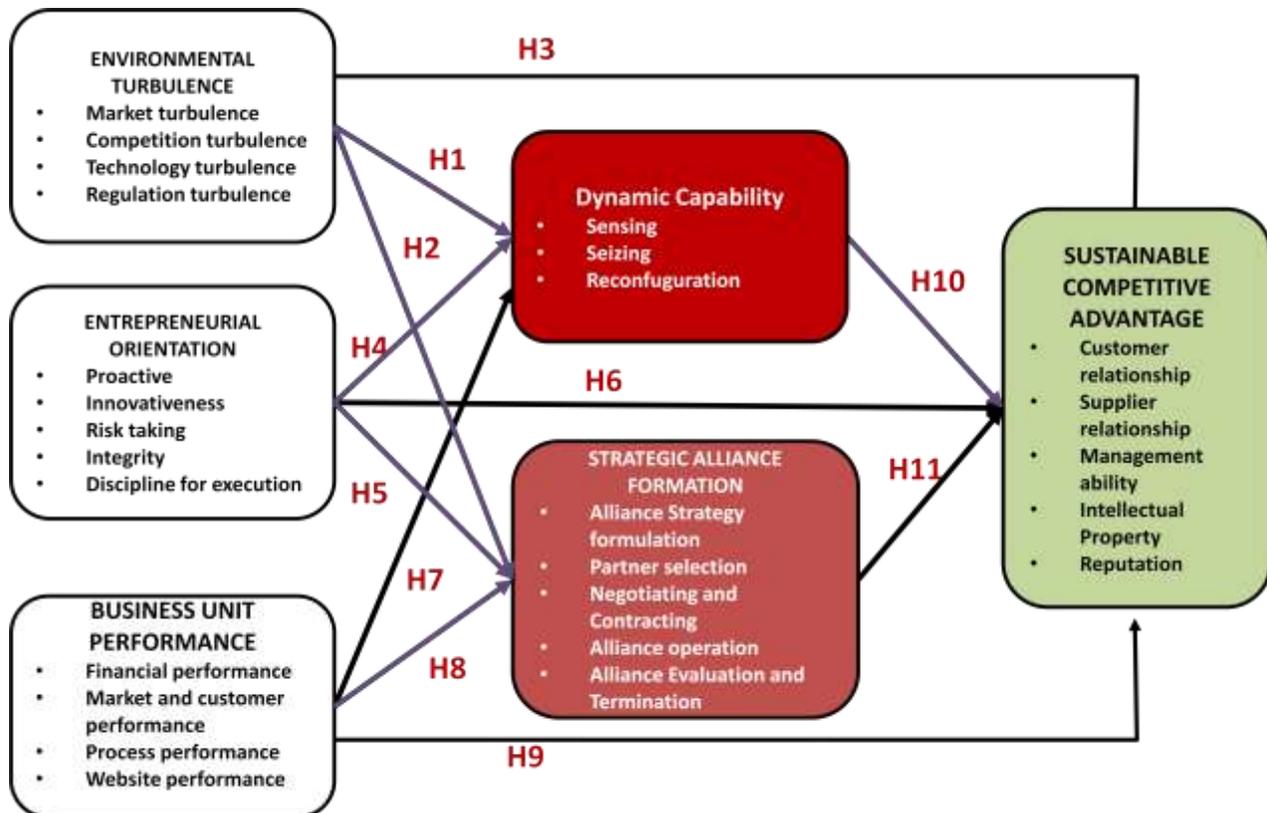
The key role that alliance plays is overcoming the problems of resource acquisition that are difficult to solve by a single organization (Gulati & Sing, 1998). Therefore, it needs to combine some companies with certain resources in a bid to seize emerging opportunities; One fundamental reason as a basis of cooperation is that the resources generate competitive advantage when each company cannot easily reach it individually (Barney, 1991). The scale or size of company maybe the reason, that is, the individual companies are incapable of paying some resources they need, but there may be other motives. If resources can be obtained in markets at high costs or for a relatively long time, an alliance may gain the expected results at lower costs or for a shorter time. If individual companies don't have sufficient resources to enter a special market, they can do it by joining one or more alliances, while co-opting potential competitors (Kogut, 1988). Consistent with the reason, earlier researches have found that those companies with complementary resources are more likely to collaborate (Gulati & Sing, 1995). An equally very important, additional argument is that each company seeks alliance when it has an access to certain market(s) where other companies don't, or so called market

complementary. This is important, because companies need to build resources of a specific value in markets (Gimeno, 2004). Included in this are scarce tangible resources such as property at strategic location and intangible local resources such as reputation, customer network, and knowledge. The resources provide competitive advantages in target markets to both the organizations that own them and also other companies participating in the alliance (Barney, 1991; Dierickx & Cool, 1989; Kogut & Zander, 1992). For example, navigation companies in an alliance can swap access to the port terminal they own, share information on customer demands and preferences in certain markets (e.g., customer's shipping schedules), and jointly access social networks (e.g., port authority and customers). Therefore, market complementary is also related to resources complementary because the value that a market complementary has can often be traced back to market-specific resources. Based on the preceding description, the research hypothesis was formulated as follows:

H11: The higher the success of strategic alliance formation is, the higher the success of sustainable competitive advantage development will be.

Based on the explanation above, the research model could be described as follows:

Figure 1. Research Model



METHODOLOGY

To test the hypotheses, the researcher took the samples of online stores that were operating in Bandung, West Java area from the database of one of the B2B2C e-commerce providers well known in Indonesia (its name unpublished on request). The number of Bandung-based online stores registered in the website was over 5 thousands, including micro, small, and middle online stores. The online stores categorized as middle scale consisted of 251 online stores, chosen as the subject of the present research. Of the 251 online stores, 50 were selected to represent the 5 categories of products, namely: fashion (10 online stores), electronics (10 online stores), handicrafts (10 online stores), others (20 online stores).

The 50 respondents above had been contacted by phone to explain the purpose of the survey and asked their readiness to fill in a questionnaire. Of the 50 respondents, 37 online stores were successfully contacted and ready to be involved in the survey. Of the 37 respondents, 35 filled in completely the questionnaire. To assure the reliability and neutrality of the survey findings, a discussion with 10 online store owners was also held, so as to get their deeper perceptions. The number of respondents was over 30, so it was qualified for a correlational research (Sekaran, et al 2013).

ANALYSIS AND FINDINGS

The data analysis technique used in the research was a variants-based SEM (Structural Equation Modeling) technique, or so-called PLS (Partial Least Square). The consideration for using the technique was that because the research has more than one dependent variable, where SEM would be more effective than regression technique. Moreover, variants-based SEM or PLS was chosen because the research purpose was predictive in nature and used a relatively small sample.

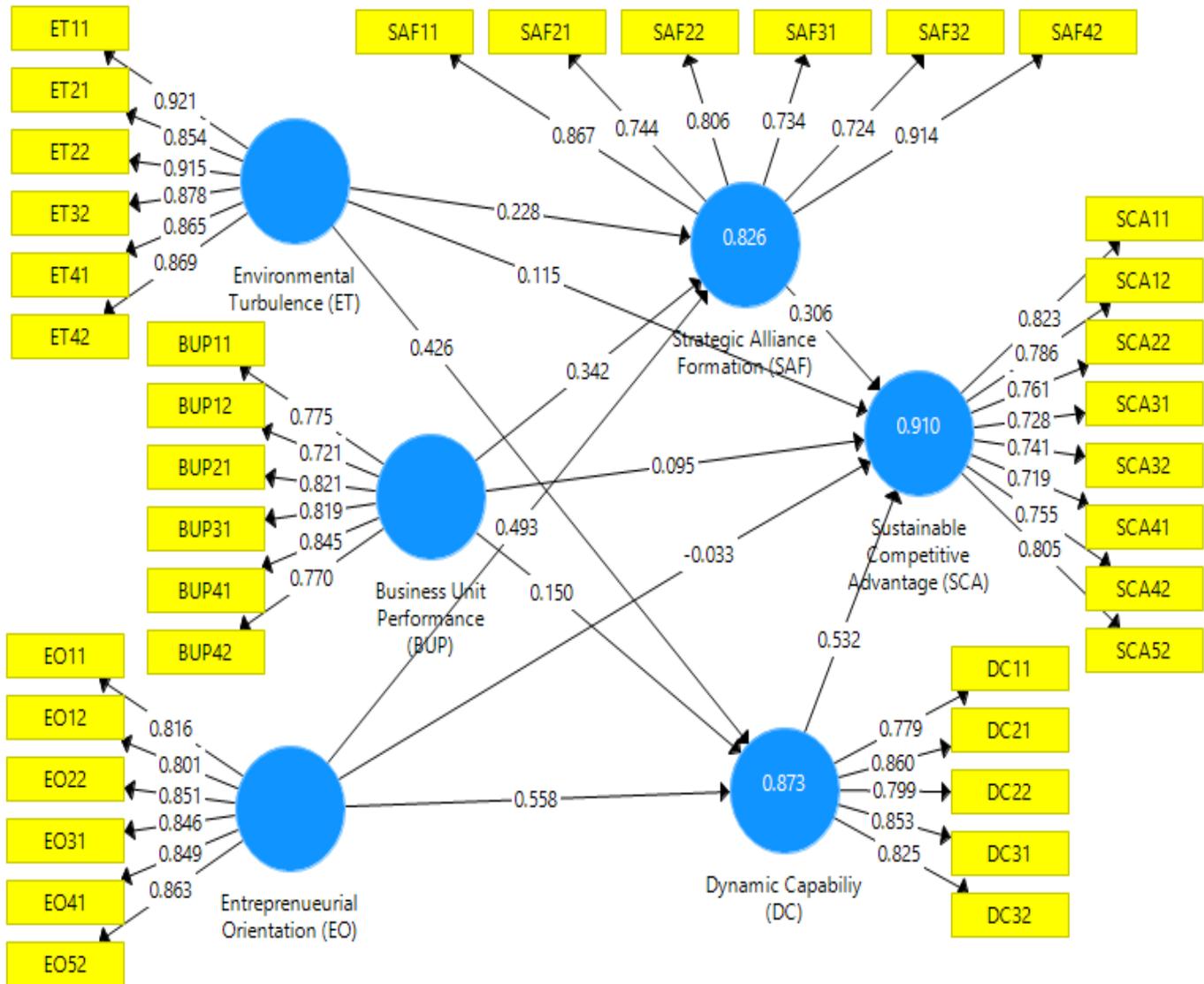
The stages of analysis with PLS were twofold, namely: 1) measurement model analysis (outer model) intended to analyze the validity and reliability of research construct and 2) structural model analysis (inner model) intended to test the significance between the variables using SmartPLS 3.0.

Measurement model analysis

A construct validity test can generally be measured by loading score parameter, AVE parameter, and Redundancy. According to Sekaran et al (2013), reliability less than 0.60 is generally considered as poor, reliability in a range of 0.70 is acceptable and that of greater than 0.80 is good. Meanwhile, AVE scores have to be > 0.5 , and Redundancy approaching 1. From the data processing by using SmartPLS 3.0 software, there were 15 of the 52 indicators with a

loading factors (λ) value < 0.7 , i.e., on the variable of BUP22 (0.620), BUP32 (0.224), DC12(0.291), EO21 (0,560), EO32(0.332), E042(0.470), EO51(0,632), ET12 (0.136), ET31 (0.290),SAF12 (0.301), SAF41 (0.302), SAF51 (0.634), SAF52 (0.217) and SCA21 (0.331) and SCA51 (0,572) indicators. Thus these indicators must be dropped. After the 15 indicators have been dropped, the following results were obtained:

Figure 2. Path Diagram – PLS Result



The values of loading, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronchbach Alpha (CA) can be seen in Table 1 as follows:

Table 1. Factor Loading, AVE, CR and CA

Variable	Indicator	Loading Factor	AVE	CR	CA
Environmental Turbulence	ET11	0.854	0.782	0.956	0.944
	ET21	0.914			
	ET22	0.878			
	ET32	0.866			
	ET42	0.871			
Business Unit Performance	BUP11	0.775	0.629	0.910	0.882
	BUP12	0.721			
	BUP21	0.821			
	BUP31	0.819			
	BUP41	0.845			
	BUP42	0.770			
Entrepreneurial Orientation	E011	0.816	0.702	0.934	0.915
	E012	0.801			
	EO22	0.851			
	EO31	0.846			
	EO41	0.849			
	EO52	0.863			
Dynamic Capability	DC11	0.779	0.679	0.913	0.881
	DC21	0.860			
	DC22	0.799			
	DC31	0.853			
	DC32	0.825			
Strategic Alliance Formation	SAF11	0.867	0.642	0.914	0.887
	SAF21	0.744			
	SAF22	0.806			
	SAF31	0.734			
	SAF32	0.724			
	SAF42	0.914			
Sustainable Competitive Advantage	SCA11	0.823	0.586	0.919	0.899
	SCA12	0.786			
	SCA22	0.761			
	SCA31	0.728			
	SCA32	0.741			
	SCA41	0.719			
	SCA42	0.755			
	SCA52	0.805			

Based on the table above, it appears that all indicators of ET, BUP, EO, DC, SAF, and SCA variables have a loading factor >0.7 and AVE value > 0.5 , CR > 0.7 , and CA > 0.6 . It shows that the results of measurement above have met validity and reliability requirements, and thus the researcher proceeded to next analysis, a structural model analysis.

Structural model analysis

The structural model analysis is used to test the hypothesis relationship, particularly to examine whether the effect of environmental turbulence, Business unit performance and Entrepreneurial orientation on sustainable competitive advantage are direct or indirect (i.e. mediated by dynamic capabilities and strategic alliance formation).

Table 2. Path Coefficients

No	Causality Relation	Original Sample (O)	Mean	St. Err	T Stat.	P Values	Remark
1	Environmental Turbulence (ET) --> Dynamic Capability (DC)	0.426	0.426	0.109	3.908	0.000	Supported
2	Environmental Turbulence (ET) --> Strat. Alliance Form. (SAF)	0.228	0.233	0.106	2.154	0.032	Supported
3	Environmental Turbulence (ET) --> Sust. Comp. Adv. (SCA).	0.115	0.107	0.144	0.803	0.422	Not Supported
4	Business Unit Performance (BUP) --> Dynamic Capability (DC)	0.150	0.157	0.138	1.082	0.280	Not Supported
5	Business Unit Performance (BUP) --> Strat. Alliance Form. (SAF)	0.342	0.345	0.146	2.336	0.020	Supported
6	Business Unit Performance (BUP) --> Sust. Comp. Adv. (SCA).	0.095	0.092	0.101	0.947	0.344	Not Supported
7	Entrepreneurial Orientation (EO) --> Dynamic Capability (DC)	0.558	0.555	0.140	3.994	0.000	Supported
8	Entrepreneurial Orientation (EO) --> Strat. Alliance Form. (SAF)	0.493	0.489	0.135	3.646	0.000	Supported
9	Entrepreneurial Orientation (EO) --> Sust. Comp. Adv. (SCA).	-0.033	-0.054	0.108	0.306	0.759	Not Supported
10	Strategic Alliance Form. (SAF) --> Sust. Comp. Adv. (SCA).	0.306	0.315	0.148	2.066	0.039	Supported
11	Dynamic Capability (DC) --> Sust. Comp. Adv. (SCA).	0.532	0.556	0.234	2.271	0.024	Supported

Based on the table above, the hypotheses could be explained as follows:

- 1) Relationship between Environmental Turbulence (ET) and Dynamic Capability (DC). The path parameter coefficient found from the relationship between ET and DC was 0.426 with T-statistic value of $3.908 > 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was a significant relationship between Environmental Turbulence (ET) and Dynamic Capability (DC). The positive value of parameter coefficient means that the higher the perception of Environmental Turbulence (ET), the higher the Dynamic Capability (DC) of a company. Thus, **H1 was rejected**, or there was a significant influence of Environmental Turbulence on Dynamic Capability.

- 2) Relationship between Environmental Turbulence (ET) and Strategic Alliance Formation (SAF). The path parameter coefficient found from the relationship between ET and SAF was 0.228 with T-statistic value of $2.154 > 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was a significant relationship between Environmental Turbulence (ET) and Strategic Alliance Formation (SAF). The positive value of parameter coefficient means that the higher the perception of Environmental Turbulence (ET), the higher the Strategic Alliance Formation (SAF) of a company. Thus, **H2 was rejected**, or there was a significant influence of Environmental Turbulence on Strategic Alliance Formation.
- 3) Relationship between Environmental Turbulence (ET) and Sustainable Competitive Advantage (SCA). The path parameter coefficient found from the relationship between ET and SCA was 0.115 with T-statistic value of $0.803 < 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was an insignificant relationship between Environmental Turbulence (ET) and Sustainable Competitive Advantage (SAF). Thus, **H3 was accepted** or there was a insignificant influence of Environmental Turbulence on Sustainable Competitive Advantage.
- 4) Relationship between Business Unit Performance (BUP) and Dynamic Capability (DC). The path parameter coefficient found from the relationship between BUP and DC was 0.150 with T-statistic value of $1.082 < 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was an insignificant relationship between Business Unit Performance (BUP) and Dynamic Capability (DC). Thus, **H4 was accepted**, or there was an insignificant influence of Business Unit Performance (BUP) on Dynamic Capability.
- 5) Relationship between Business Unit Performance (BUP) and Strategic Alliance Formation (SAF). The path parameter coefficient found from the relationship between BUP and SAF was 0.342 with T-statistic value of $2.336 > 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was a significant relationship between Business Unit Performance (BUP) and Strategic Alliance Formation (SAF). The positive value of parameter coefficient means that the higher the perception of Business Unit Performance (BUP), the higher the Strategic Alliance Formation (SAF) of a company. Thus, **H5 was rejected**, or there was a significant influence of Business Unit Performance (BUP) on Strategic Alliance Formation.
- 6) Relationship between Business Unit Performance (BUP) and Sustainable Competitive Advantage (SCA). The path parameter coefficient found from the relationship between BUP and SCA was 0.095 with T-statistic value of $0.947 < 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was an insignificant relationship between Business Unit Performance (BUP) and Sustainable Competitive Advantage (SCA). Thus, **H6 was**

accepted, or there was an insignificant influence of Business Unit Performance (BUP) on Sustainable Competitive Advantage.

- 7) Relationship between Business Unit Performance (BUP) and Dynamic Capability (DC). The path parameter coefficient found from the relationship between BUP and DC was 0.558 with T-statistic value of $3.994 > 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was a significant relationship between Business Unit Performance (BUP) and Dynamic Capability (DC). The positive value of parameter coefficient means that the higher the perception of Business Unit Performance (BUP), the higher the Dynamic Capability (DC) of a company. Thus, **H7 was rejected**, or there was a significant influence of Business Unit Performance (BUP) on Dynamic Capability.
- 8) Relationship between Entrepreneurial Orientation (EO) and Strategic Alliance Formation (SAF). The path parameter coefficient found from the relationship between EO and SAF was 0.493 with T-statistic value of $3.646 > 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was a significant relationship between Entrepreneurial Orientation (EO) and Strategic Alliance Formation (SAF). The positive value of parameter coefficient means that the higher the Entrepreneurial Orientation (EO), the higher the Strategic Alliance Formation (SAF) of a company. Thus, **H8 was rejected**, or there was a significant influence of Entrepreneurial Orientation on Strategic Alliance Formation.
- 9) Relationship between Entrepreneurial Orientation (EO) and Sustainable Competitive Advantage (SCA). The path parameter coefficient found from the relationship between EO and SCA was 0.033 with T-statistic value of $0.306 < 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was an insignificant relationship between Entrepreneurial Orientation (EO) and Sustainable Competitive Advantage (SAF). Thus, **H9 was accepted**, or there was an insignificant influence of Entrepreneurial Orientation on Sustainable Competitive Advantage.
- 10) Relationship between Strategic Alliance Formation (SAF) and Sustainable Competitive Advantage (SCA). The path parameter coefficient found from the relationship between SAF and SCA was 0.306 with T-statistic value of $2.066 > 1.96$ at a significance level $\alpha = 0.05$ (5%), meaning that there was a significant relationship between Strategic Alliance Formation (SAF) and Sustainable Competitive Advantage (SAF). The positive value of parameter coefficient means that the higher the Strategic Alliance Formation (SAF), the higher the Sustainable Competitive Advantage (SCA) of a company. Thus, **H10 was rejected**, or there was a significant influence of Entrepreneurial Orientation on Sustainable Competitive Advantage.

11) Relationship between Dynamic Capability (DC) and Sustainable Competitive Advantage (SCA). The path parameter coefficient found from the relationship between DC and SCA was 0.533 with T-statistic value of 2.271 > 1.96 at a significance level $\alpha = 0.05$ (5%), meaning that there was a significant relationship between Dynamic Capability (DC) and Sustainable Competitive Advantage (SAF). The positive value of parameter coefficient means that the higher the Dynamic Capability (DC), the higher the Strategic Alliance Formation (SAF) of a company. Thus, **H11 was rejected**, or there was a significant influence of Dynamic Capability on Sustainable Competitive Advantage.

Based on the path parameter coefficient obtained in the table 2 above, the formed structural equation model was as follows:

- 1) $DC = 0.426*ET + 0.558*EO$
- 2) $SAF = 0.228*ET + 0.342*BUP + 0.493*EO$
- 3) $SCA = 0.532*DC + 0.306*SAF$

For the extent of the influences of the exogenous variables (ET, BUP, and EO) on the endogenous variables (DC, SAF, SCA), see the values of R^2 in the table below.

Table 3. R^2 values of CD, SAF, and SCA variables

No	Variable Endogen	Coeff.	Mean	St. Err	T Statistics	P Values
1	Dynamic Capability (CD)	0.873	0.885	0.034	25.434	0.000
2	Strategic Alliance Formation (SAF)	0.826	0.841	0.040	29.903	0.000
3	Sustainable Competitive Advantage (SCA).	0.910	0.925	0.031	28.934	0.000

Based on the table 2 above, the R^2 values of DC, SAF, and SCA variables were 0.873, 0.826, and 0.910, respectively. These values show that endogenous variable of CD was accounted for by exogenous variables of ET, BUP, and EO by 87.3%, the remaining 13.7% being accounted for by unknown other variables. Meanwhile, the endogenous variable of SAF was accounted for by the exogenous variables of ET, BUP, and EO by 82.6%, the remaining 17.3% being accounted for by unknown other variables. SCA variable was accounted for by DC, SAF, ET, BUP, and EO variables by 91%.

DISCUSSIONS

Based on the result of data processing above, some findings were presented as follows:

- 1) *Environmental Turbulence Perception, Business Unit Performance, and Entrepreneurial Orientation DIDN'T HAVE DIRECT INFLUENCE on Sustainable Competitive Advantage, instead they have indirect influence by the intervening variables of Dynamic Capability and Strategic Alliance Formation.*

Competitive turbulence was the most predominant factor in the environmental turbulence of e-commerce business, where competitive environment has fallen into a category of hypercompetition (Sengupta, 2012: 73). The main cause of hypercompetition was the relatively high presence level of new entry businessmen. The high presence of new entrances has also a multiplier effect on other environmental turbulence. According to Porter (2008), industrial competitiveness is influenced by four sources of power, namely: from customer bargaining, supplier bargaining, incentives/barriers on new entrances, and the existence of substitutes. Online store business is an alternative business for beginning businessmen because it may be initiated by a minimum capital with no considerable investment cost. Therefore, 70% of the currently operating online stores are startup businesses. These startup businessmen generally offer innovative products at low prices. It leads to even shorter life cycles. The many options of products in marketplaces have some impact on the customer bargaining that is getting higher. In addition, supplier bargaining is also relative high, in line with the ever growing number of online stores. Suppliers tend to prioritize their orders to those online stores which are ready to buy in big quantities and make payments on time.

Under a turbulent environment condition as described above, for online stores to survive, they have to sensitively comprehend environmental changes and read the gap between consumer needs and product supply. Online stores should be capable of filling the gap by integrating their internal and external capability and reconfiguring their capability, competence, and resources together with alliance partners. That is, the higher the online store leaders' perception of environmental turbulence, the high their dynamic capability and strategic alliance formation.

The height or lowness of a perception of environment didn't have a direct influence on sustainable competitive advantage, but it has direct influence on both dynamic capability and strategic alliance formation. It indicates that both dynamic capability and strategic alliance formation were intervening variables between environmental turbulence and sustainable competitive advantage in agreement with the theoretical basis.

Moreover, business Unit Performance has an influence on Strategic Alliance Formation, but it has influence neither on Dynamic Capability and Sustainable nor on Sustainable

Competitive Advantage. Every company that wants to build cooperation should generally scrutinize the track record of its potential partners. This is understandable, given that corporate performance is one of the initial assessment factors. That is, the higher the performance of a company, the higher the opportunities of developing its business by a partnership.

Business unit performance has insignificant influence on dynamic capability. This indicates that dynamic capability can be done by any companies, be they of low performance or of high performance. To see the behaviors of online stores in implementing this dynamic capability, it still needs to carry out an advanced analysis based on a descriptive analysis, but it needs a larger sample so as to meet a normality test

The height or lowness of a business unit performance didn't have a direct influence on sustainable competitive advantage, but it has direct influence on strategic alliance formation. It indicates that strategic alliance formation was an intervening variable between environmental turbulence and sustainable competitive advantage in agreement with the theoretical basis.

Entrepreneur orientation has influence on both Dynamic Capability and Strategic Alliance Formation, but it has no direct influence on Sustainable Competitive Advantage. Some earlier researches, e.g., Reswanda (2001) and Mahmood (2013), conclude that entrepreneurial orientation has direct influence on the improvement of competitive advantage. This is understandable, given that their researches didn't use an intervening variable. However, the present research indicated that entrepreneurial orientation has no direct influence on sustainable competitive advantage, but it has indirect influence through both dynamic capability and strategic alliance formation variables.

2) Dynamic Capability and Strategic Alliance Formation are the success keys in building Sustainable Competitive Advantage.

The results of data processing in the fig. 1 and table 2 above show that both intervening Dynamic Capability and Strategic Alliance Formation variables have significant influence on Sustainable Competitive Advantage, where the influence of Dynamic Capability was 1.7 times greater than that of Strategic Alliance Formation. The significant relationship between Dynamic Capability and Sustainable Competitive Advantage was also in agreement with earlier researches, e.g., Daniel and Wilson (2003). Meanwhile, a significant relationship between Strategic Alliance Formation and Sustainable Competitive Advantage is also shown by a research by Bellal et al. (2011).

From the discussion above it could be concluded that both Dynamic Capability and Strategic Alliance Formation were the success keys in building Sustainable competitive Advantage.

RESEARCH IMPLICATIONS

- 1) Dynamic capabilities have been found that have a significant impact on sustainable competitive advantage, because it could help E-commerce company to identify emerging opportunities, renew its competences and keep its competitive advantages in a dynamic business environment. Previously, the technology of e-commerce has change drastically from Internet-enabled commerce (I-commerce) to mobile commerce (M-commerce) and today changes disruptively to ubiquitous commerce (U-commerce). Refer to Wu (2008), elucidated that the technological innovation from I-commerce and M-commerce to U-commerce, will also be followed by radical changes in the business model. Therefore, a set of critical dynamic capabilities for each innovation should be identified and developed. These will provide great insight for practitioners and scholars for enhancing their understanding of E-commerce innovation, and provide guidelines to help practitioners adapt from one type of innovation to another.
- 2) Strategic alliance formation also have found that have a significant impact on sustainable competitive advantage especially on dimension of supplier relationship. Good strategic alliance formation could help online store's company to build strong supply chain by developing mutual strategy, choosing the right partner, carried out good negotiation and contract, execute alliances well and doing evaluation and development. However, from the results of the study found that the level of alliance building online stores in West Java is still low. This, it should be a concern of government and private institutions to contribute to developing the ability of shop online in establishing cooperation or strategic alliance.

CONCLUSION

- 1) Environmental Turbulence has significant influence on Dynamic Capability (DC), as shown by the path parameter coefficient = 0.426, T-statistical value = 3.908, greater than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 2) Environmental Turbulence has also significant influence on Strategic Alliance Formation (SAF), as shown by the path parameter coefficient = 0.228, T-statistical value = 2.154, greater than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 3) Environmental Turbulence (ET) has insignificant influence on Sustainable Competitive Advantage (SCA), as shown by the path parameter coefficient = 0.115, T-statistical value = 0.803, less than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 4) Business Unit Performance has insignificant influence on Dynamic Capability (DC), as shown by the path parameter coefficient = 1.150, T-statistical value = 1.082, less than 1.96 at significance level of $\alpha = 0.05$ (5%).

- 5) Business Unit Performance (BUP) has significant influence on Strategic Alliance Formation (SAF), as shown by the path parameter coefficient = 0.342 T-statistical value = 2.336 > 1.96 at significance level of $\alpha = 0.05$ (5%).
- 6) Business Unit Performance (BUP) has insignificant influence on Sustainable Competitive Advantage (SCA), as shown by the path parameter coefficient = 0.095, T-statistical value = 0.947, less than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 7) Entrepreneurial Orientation (EO) has significant influence on Dynamic Capability (DC), as shown by the path parameter coefficient = 0.558, T-statistical value = 3.994, greater than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 8) Entrepreneurial Orientation (EO) has significant influence on Strategic Alliance Formation (SAF), as shown by the path parameter coefficient = 0.493, T-statistical value = 3.646, greater than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 9) Entrepreneurial Orientation (EO) has insignificant influence on Sustainable Competitive Advantage (SCA), as shown by the path parameter coefficient = 0.033, T-statistical value = 0.306, less than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 10) Strategic Alliance Formation (SAF) has significant influence on Sustainable Competitive Advantage (SCA), as shown by the path parameter coefficient = 0.306, T-statistical value = 2.066 greater than 1.96 at significance level of $\alpha = 0.05$ (5%).
- 11) Dynamic Capability (DC) has significant influence on Sustainable Competitive Advantage (SCA), as shown by the path parameter coefficient = 0.532, T-statistical value = 2.271, greater than 1.96 at significance level of $\alpha = 0.05$ (5%).

RESEARCH LIMITATIONS AND FURTHER RESEARCH

One of the first limitations is in the area of participants. In this study, using a limited number of samples and online stores only took from one B2B2C e-commerce provider that located in West Java. Another limitation is that only one person responded to the questionnaire, providing subjective data. Given the above and the concern with only one perceptual response regarding this research, it could be strengthened with the availability of objective data. What could be done differently is to identify objective data measures that could then be used in place of the subjective responses. Or, one could use both the subjective and objective results and perform a triangulation or multi-trait, multi-method approach to provide additional data for analyses. This study did not differentiate the problems of online stores between single product and multi product and based on categories of products that may have different problems. Another limitation may be in the measurement of performance by B2B2C e-commerce provider, that available only in one year.

To get a more accurate analysis, it needs to carry out some advanced researches in form of descriptive researches on each construct by larger samples. The present didn't differentiate the categories of businesses. In the future, it needs to conduct special researches to see if there are differences in the development of sustainable competitive advantage for different categories of products.

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