

Print ISSN: 2288-4637 / Online ISSN 2288-4645
doi:10.13106/jafeb.2021.vol8.no6.0483

The Effect of E-Commerce Capabilities on Firm Performance: An Empirical Study in Indonesia

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Received: February 20, 2021 Revised: April 20, 2021 Accepted: May 02, 2021

Abstract

The creative industry is also impacted by volatile economic and business conditions; many entrepreneurs using E-commerce as one of their business channels. Companies adaptation rate may depend on their capabilities, such as innovation capabilities and dynamic capabilities. Indonesia has various cultures and a vast geographic area, which make creative industry in Indonesia develop their own unique traits and features. Unique characteristics of creative industry and its relationship with their capabilities and E-commerce performance have yet been explored. In this paper, we discuss the phenomenon and produce findings related with direct and indirect impact between E-commerce capabilities, innovation capabilities, and creative firm E-commerce performance. Quantitative approach with cluster random sampling towards 383 entrepreneurs and business owners were used in this paper. Empirical result from this study has shown that creative firm E-commerce performance was significantly influenced through indirect relationship E-commerce capabilities and innovation capabilities. On the other hand, direct relationship result between E-commerce capabilities toward creative firm E-commerce performance was insignificant. This result means that innovation capabilities play an essential role as decent mediator and catalyst in order to enhance E-commerce capabilities impact for achieving superior firm performance in terms of creative industry, which may be used as guidelines for entrepreneurs and business owners.

Keywords: Creative Industry, Dynamic Capabilities, E-Commerce, Firm Performance

JEL Classification Code: L25, L26, M13

1. Introduction

Creative industries have been a new phenomenon, which contribute around 7% toward Indonesia GDP in 2018, with enormous potential, not only for the domestic market, but also expanding their influence toward export markets. Furthermore, only 50.87% of companies and entrepreneurs

adopt E-commerce in their business operations. It is necessary to develop promotional methods with the aim of seizing export market share in order to break down barriers of national borders. In addition, social media and websites have become superior choices as promotional methods where both of them really need the use of the Internet. While each sub-sectors adoption rate varies, only two sub-sectors reach more than 75% adoption rate. Low Internet utilization and low level of E-commerce adoption may indicate that many businesses still rely on their method of offline transactions. Indonesia's creative industry can be defined as the embodiment of added value to intellectual property rights that comes from human creativity, which is based on science, culture, and technology. Various sub-sectors in this type of industries provide unique characteristics compared with other type of business. Most of the businesses in this sector may be categorized as small- and medium-sized enterprises (SMEs) in terms of business scale.

Industry 4.0 has pushed the growth of companies to adopt the digital culture faster than before, including the usage of E-commerce as one of main channel for selling their

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goods and services. It is a novel trading method allowing consumers to make online transactions (Singh et al., 2021). The use of the Internet cannot be separated from the adoption of E-business for a business model. By changing the entire business chain into electronic transactions means adopting the Internet into existing business processes. E-commerce can be one of the best assets to cross national borders, in this case, reducing barriers to export activities.

Meanwhile, the COVID-19 pandemic affects the consumer behavior and creates new barriers toward business with the nature of transactions using direct-selling method. COVID-19 pandemic has brought negative impact on economies worldwide, on all type of industries and sectors. Various actions and measures have been taken, not only to contain the spread of the pandemic, but also to maintain the economy in order to sustain and minimize the negative impacts. One of the actions taken by many countries and states are limiting the activities of their citizen in several stages, starting from physical distancing to lockdown. Through movement and activity limitations, many people cannot conduct their usual business, and face-to-face interactions are more likely to be banned by several nations. Unless there is a permanent solution to cure the disease or setting up proper countermeasures and live along with the virus, this condition may last for a long period of time. This situation not only impacts on current business performance, but also threatens business survivability and sustainability. This kind of barriers prevent both newly-developed and existing SMEs from interacting with existing and potential customers. Ultimately, creative businesses have difficulties to enter the competitive market.

With the great potential of E-commerce, there are still 49.13% of creative economy entrepreneurs who have not implemented E-commerce. Each creative economy sub-sector has a different adoption rate where there is still a lot of potential that can be developed in each of them. This electronic sales channel helps many SMEs to penetrate the market efficiently, especially during the COVID-19 pandemic, which have limits to face-to-face or offline selling channels. Therefore, E-commerce may define a whole electronic chain to accomplish the objectives of a business where cycles can happen part of the way or totally and can incorporate B2B-B2C-C2B exchanges (Wigand, 1997). In more specific terms, E-commerce as a web-based business may represent the utilization of the web by different organizations for purchasing and selling as well as sending or trading information identified with products and enterprises. E-commerce is fundamentally identical to E-business itself (Turban et al., 2018). The low level of E-commerce adoption among entrepreneurs in the creative economy sector deserves special attention. Based on the explanation above, there is a potential for creative industry E-commerce to be further developed. With the current volatile economic

and business conditions, a company's dynamic capabilities have taken a very vital and crucial role above the company's own resources. The critical point of this research is related to dynamic capabilities rather than go through the resources of an organization.

2. Literature Review

2.1. E-Commerce Capabilities

Dynamic capabilities can be defined as the ability of an organization or company to adapt to an agile changing environment by integrating, building, and reconfiguring their internal and external competencies (Teece et al., 1997). In order to survive, companies need to change their internal process rapidly and have flexibilities to meet customer's demand. Therefore, they need to deal with the development, reconfiguration, and integration of operational capability (Addinna, Prasetyo, & Rufaidah, 2018). Dynamic capabilities in the context of E-commerce can be referred to as E-commerce capabilities, which describe the company's strategies and initiatives in E-commerce adoption as part of increasing capabilities to improve overall company performance (Kuang, 2011). Business performance is not necessarily evaluated through financial perspective only, but also through their business value. E-commerce capabilities, in addition to improving business performance, also have an influence on E-commerce value, which is measured both financially and non-financially (Jehangir et al., 2011).

Organizations themselves need to carry out adaptation activities to enable innovation in the organization that will expose the need for external knowledge exploitation. The adaptation that is carried out will depend on the capacity of a company to absorb the changes that occur in the business world. Absorption capacity can be defined as the ability to recognize and assimilate the value of new information to the extent of commercial purpose applications (Cohen & Levinthal, 1990).

The agile business environment demands organizations and companies with dynamic capabilities. Dynamic capabilities can be referred to as the ability of an organization or company to adapt to an agile changing environment by integrating, building, and reconfiguring their internal and external competencies (Teece et al., 1997). Dynamic capabilities can be combined with strategic analysis to guide organizational transformation, which will follow three basic steps, namely, Sense-Seize-Transform (Teece, 2018). These three steps act as guideline for companies in order to change their business process and model and survive the harsh business landscape revolution, especially during COVID-19.

In measuring the concept of dynamic ability in general, which focuses on latent results compared to the frequency of activities, a measuring scale that has high

psychometric quality will be used (Kump et al., 2018). Through measuring their activities, it may reflect their E-commerce competencies toward business activities. Competence in running E-commerce centered on customer value not only increases the value of the stakeholders, but also the company's performance (Saeed et al., 2005). Competencies which developed together with capacities may resulting in E-commerce competencies growing into E-commerce capabilities. E-commerce capabilities are part of dynamic capabilities, which require companies to build a business and adjust according to changing technology and business environment measured through the capabilities of information, transactions, and customization (Kuang, 2011; Kuang & Xu, 2008). E-commerce capability, IT capability, and company performance become a series that is difficult to separate. Based on this concept, E-commerce capability in this study can be defined as the ability of a creative company to implement E-commerce. In the context of this research, the three dimensions used are opportunity identification, opportunity utilization, and organizational transformation.

2.2. Innovation Capabilities

The role of E-commerce capability on company's E-commerce performance does not only provide direct influence. It can also have an indirect effect through innovation capabilities. The partial relationship that occurs in previous studies can be reviewed holistically so that it can describe the overall relationship between variables, either directly or indirectly. The indirect effect of the company's dynamic capabilities based on the concept of dynamic capabilities on firm performance can be mediated by corporate innovation (Giniuniene & Jurksiene, 2015; Shafia et al., 2016; Zhou et al., 2019), which includes the performance of the influence on the export market (Vicente et al., 2015) and the company's competitive advantage (Ferreira et al., 2018). In the scope of E-business, an organization's innovation can have an indirect effect on company performance (Soto-Acosta et al., 2016). On the contrary, innovation culture does not necessary have an impact on firm performance (Muafi et al., 2020).

The company's capacity to enhance is indivisible from a company's energetic capabilities. It can moreover be said that innovation capabilities are part of dynamic capabilities (Breznik & Hisrich, 2014). Absorption capacity at a certain level, which can categorized as advanced, has an impact on the company's ability to innovate (Najafi-Tavani et al., 2018). Absorptive capacity that comes to a high level through information procurement, digestion, change, and manipulation will increment the innovation capabilities. Innovation capability can be characterized as the company's capacity to create development through ceaseless learning, information exchange, imagination, and misuse of inside and outside resources (Iddris, 2016). In building innovation

capabilities, there are nine imperative variables that must be considered: information administration, organizational culture, organizational learning, administration, collaboration, imagination, thought administration, and advancement methodologies where information administration and organizational culture are measurements frequently found in past investigation. Moreover, dynamic capabilities may bring positive influence on company performance and competitiveness after using innovation capabilities (Ferreira et al., 2018; Shafia et al., 2016). Based on this concept, innovation capability in this study can be defined as the ability to make innovations both in terms of products and business processes of creative companies. In the context of this research, the two dimensions used are science management and organizational culture.

Dynamic capabilities may have a significant impact in many cases of business. Nevertheless, they also produce insignificant impact in terms of direct relationship with organizational performance (Rehman & Saeed, 2015). Furthermore, despite the significant result in direct effect, partial model may show insignificant result toward firm performance (Fitriati et al., 2020; Protogerou et al., 2012) especially on SMEs and partly on entrepreneurship environment. This contradiction indicates that dynamic capabilities may bring different result for different type of industry, country, and business volatility. There are opportunities to explore relationships between dynamic capabilities and firm performances both directly and indirectly.

Creative business mostly operates on a basic organization function. There still many opportunities for these types of companies to develop their critical assets to achieve long-term competitive advantages. Organizations that have the upside of critical assets will have long-haul benefits in profitable business execution by expanding the viability and proficiency of the organization (Barney, 1991; Wernerfelt, 1984). In order to create competitive advantages against competitors, creative businesses may adopt the electronic sales channel to differentiate with other firms who are not willing to change their business model. E-commerce business appropriation can take the upper hand against contenders, both homegrown and foreign (Khan et al., 2016). Any type of business advances compared with other competitors, both in the same and different industries, may increase the chance for businesses to survive and increase their firm performance.

Creative businesses can actualize the concept of E-commerce into an interesting line of trade so that they require the estimation of the level of execution of the E-commerce commerce they are running. The execution of a commerce or a company cannot be evaluated exclusively in money terms. Nevertheless, it is possible to be measured in non-financial terms. The balanced scorecard could be an instrument commonly utilized by company administration to assess the adequacy of company execution and methodology. In this case, the balanced scorecard may be described as a

portion of a device to assess the company's E-commerce execution. Execution assessment employing an adjust scorecard is based on four decisive questions: how customers see trade on-screen characters, based on what things do trade on-screen characters ought to exceed expectations, can trade performing artists proceed to advance, and how on-screen characters see the actors' interests (Kaplan & Norton, 1992). Those questions are four key elements of balanced scorecard which are customer, internal process, learning and growth, and financial. Based on this concept, innovation capability in this study can be defined as attainment of a company's business process in the creative industry, which is based on the principles of E-commerce that uses electronic components as a tool in carrying out activities of buying and selling of goods and/or services. In the context of this research, the four dimensions used are finance, internal processes, customer relations, and company growth.

Balanced scorecard itself has been used as management tools to measure firm performances (Tuan, 2020). Through four perspective effective management tools, many companies have proven that this method is effective in evaluating their performances generally and toward specific aspects. However, each industry may bring different level of evaluating balanced scorecard applications (Truong et al., 2020). This conditions also highlight the importance that creative firms may need their unique performance evaluation method based on balance scorecard. Creative industries are in need of support and guidance to grow rigorously, not only in terms of finance and regulation, but also knowledge to open their horizon.

Nowadays, E-commerce has been a crucial element to grow business and enhance firm performance. Some businesses even invest their resources in order to gain competitive advantages through E-commerce. Nevertheless, E-commerce may not directly improve firm performance, especially Indonesia's creative firm. Firm's performance related with E-commerce may depends on their capabilities. We may emphasize two type of firm's capabilities which are their E-commerce capabilities and innovation capabilities. Unique characteristics of the creative industry and its relationship with their capabilities and E-commerce performance have not yet been explored. This paper will identify and analyze the relationship and impact through an empirical approach between two important firm capabilities (E-commerce capabilities and innovation capabilities) with creative firm E-commerce performance.

3. Research Method

3.1. Data Set

Data were collected from various locations that may represent the creative industry in Indonesia. Regions

that are known for creative products and services as their main business such as Bali, Central Java, and West Java. The criteria for respondents are entrepreneurs who are engaged in the creative industry and have implemented the concept of E-commerce in their business operations so that homogeneous respondent data can be created. With various variations in the economic sub-sector, the length of time using E-commerce, the length of time that the business was established, and the location of the respondent's business enrich the heterogeneity of the respondent's data.

Based on the 2016 economic census, there are 162,557 companies in the creative economy sector from 16 kinds of sub-sectors that have implemented E-commerce. With a confidence level of 95%, and considering a sampling error of around 1%, 383 samples are required for this research. Quantitative methods have been applied as research approach by gathering questionnaires from 383 business owners selected using cluster random sampling method through online host system. Sets of questions for this primary data were specifically designed to identify entrepreneurs conditions and understanding toward their business capabilities and the impact on their company performances through questionnaires.

3.2. Method

Data were measured on a 6-point Likert scale. Responses from business owners were graded into six answers and converted into score points. Collected data analyzed using SPSS to measure the Cronbach's Alpha with value more than 0.7 indicates the reliability of the items. Moreover, we also identified their tendencies toward each variable used in the research based on their average score points. By using Confirmatory Factor Analysis through SPSS AMOS, Standardize Factor Loading was used to measure the correlation for each perspective and their items. If there are weak correlations with result below 0.5, the items or perspectives considered is weak and will be ignored. In this manner, we may achieve an optimum and relevant model to answer the research problems, which are the direct impact of E-commerce capabilities on creative firm's E-commerce performance and indirect impact when mediated by innovation capabilities.

Hypothesis testing is carried out on the relationship between variables where the positive and significant results are accepted. These results are used as the basis for confirmation and answering research questions originating from the results of the synthesis of previous studies. Models derived from the results of this study can be used to assist creative industry entrepreneurs in Indonesia in maximizing the role of E-commerce in their business models. Suggestions related to regulations can be used as input for the government to develop a creative industry oriented toward Industry 4.0.

4. Results and Discussion

Descriptive statistics (Table 1) is used to obtain information on the distribution of data on 383 respondents based on the Minimum, Maximum, Mean, and Standard Deviation values. Based on the results, we may analyze the tendencies of creative firms situation and conditions towards each variable used in this research. Furthermore, it may also indicated the competencies level of Indonesia’s creative firm situation when it comes to E-commerce.

The creative firm’s E-commerce performance (FEP) variable with 12 questions has a total value between 39 and 72, with an average value of 57.44 and a standard deviation value of 6.31. This variable average value tend toward median, which reflects the creative industry performance in terms of E-commerce in average level. Cronbach’s Alpha 0.905 with KMO 0.856 may represent that the variable is valid and reliable. The other variable is E-commerce capability (EC) with nine questions has a total value between 33 and 54, with an average value of 43.49 and a standard deviation value of 4.24. The average value, which tends to approach the maximum value of 54 points, indicates that the E-commerce capabilities possessed by creative industry entrepreneurs can be concluded at a good level. Cronbach’s Alpha 0.950 with KMO 0.897 may represent that the variable is valid and reliable. The last variable is innovation capability (IC) variable with six questions has a total value between 21 and 36, with an average value of

29.6 and a standard deviation value of 3. The average value, which tends to approach the maximum value of 36 points, indicates that creative industry entrepreneurs have good innovation capabilities in terms of business operations. Cronbach’s Alpha 0.916 with KMO 0.857 may represent that the variable is valid and reliable. Hence, these three variable is relevant toward this research.

Based on the CFI value 0.9 and considering the Goodness-of-Fit Index (GFI) value above 0.9, it means that both the data and the model are fit or good. Innovation capabilities has a greater influence as a mediator with a value of 0.583 compared to a direct relationship of 0.149. The total effect value of this model is 0.733. It can be concluded that innovation capability are good mediator variables to explain the effect of E-commerce capability on the creative firm’s E-commerce performance. Firm performance related to E-commerce may improved through companies development of E-commerce capabilities, which have invested their effort toward innovation capabilities.

Balanced scorecard is not necessarily a tool used by big firms and companies. Through this research, even micro businesses such as creative firms may used balanced scorecard to measure their company performances. Four elements of balanced scorecard have their own unique feedback to understand creative firm’s performance in terms of E-commerce.

E-commerce capabilities have proven to have a positive impact on creative firm’s E-commerce performance (Table 2).

Table 1: Descriptive Statistics

Variable	N	Min	Max	M	SD
Firm E-Commerce Performance	383	39	72	57.44	6.3
E-Commerce Capabilities	383	33	54	43.49	4.2
Innovation Capabilities	383	21	36	29.6	3

Note: M: Mean, SD: Standard Deviation.

Table 2: Regression Results

Impacts	Standardized Value	S.E.	C.R.	P
E-Commerce Capabilities Towards Innovation Capabilities	0.880	0.115	7.952	***
Innovation Capabilities Towards Creative Firm’s E-Commerce Performance	0.663	0.257	3.180	0.001
E-Commerce Capabilities Towards Creative Firm’s E-Commerce Performance	0.149	0.246	0.775	0.438

It means creative firms with E-commerce capabilities will have better performances compared with other creative businesses that still rely on conventional selling methods. Nevertheless, the result of spending company resources toward firm capabilities related with E-commerce may not be necessarily significant.

Beside the lower influence on direct relationship, E-commerce capabilities did not have a significant impact on creative firm's E-commerce performance. This finding is contrary with previous research, which supports the significant impact between dynamic capabilities and firm performance. Usually, companies who have invested their resources to develop their dynamic capabilities will have significant improvement toward their firm performances. Creative firms with unique types of business may have different business scale, so the result contradicts the generally-accepted norms. Nevertheless, the result shows insignificant direct relationship yet significant indirect relationship (Protogerou et al., 2012), especially in Indonesia's SMEs and entrepreneurship environment (Fitriati et al., 2020). This finding may indicate that these types of business scale need to be differentiated with bigger scale business such as corporation levels and require distinct solutions. Creative firms, which are mostly in the scale of micro- and small-sized enterprises should implement different solutions compared with general solutions in order to achieve optimum and efficient result when improving their E-commerce performances.

E-commerce performance of creative firm were not significantly moved by E-commerce capabilities alone. It needs a catalyst that will transform the E-commerce capabilities to have meaning and impact on the company's E-commerce performance. Even though creative firms possess capabilities related to E-commerce, without capabilities to innovate, E-commerce would only be another sales channel not utilized properly by business owners. Just like any other unutilized tools, it will become wasted and an investment that is only small bringing not significant result toward company business performance. Innovation may act as key to unlock the firm capabilities related to E-commerce. Through innovation, companies may translate and transform their assets related with E-commerce sector from tools into enabler. Innovation is the driver needed by creative firms to achieve competitive advantages when utilizing E-commerce. Ultimately, creative firm's E-commerce performance may be enhanced to a new level after investing their effort toward innovation capabilities.

5. Conclusion

The aim of this study was to define the relationship and influence between E-commerce capabilities and innovation capabilities toward creative firm E-commerce performance

in Indonesia's creative industry. The results show that there is indirect relationship between E-commerce capabilities and creative firm E-commerce performance, which impacts significantly. Furthermore, this result also indicates that balanced scorecard proved to be effective to measure E-commerce performance in the creative firm.

On the other hand, E-commerce capabilities do not directly impact on creative firm E-commerce performance. It shows that innovation capabilities may play an essential role as decent mediator and catalyst in order to enhance E-commerce capabilities impact for achieving superior firm performance in Indonesia's creative industry. Furthermore, this finding indicate that Indonesia's creative firm cannot be generalized with large-scale business and required distinct treatment. Entrepreneurs and business owners in the creative industry will need to develop their innovation capabilities to have better creative firm E-commerce performance. As stated before, if companies only enhance their E-commerce capabilities, it will not bring enough influence to elevate their creative firm E-commerce performance. These findings may elevate firm's competitive advantages, especially during COVID-19 pandemic situation.

This research has encounter several limitations. Even though extensive work during data collection and construct validation phases have been done, the potential for respondents' bias in perception cannot be exempted. Further research may be carried out on different types of industries and extend the scope for multinational exposure.

References

- Addinna, D., Prasetyo, A. R., & Rufaidah, P. (2018). Building Business Advantage Through Core Competency: Case Study PT. Japfa Comfeed Indonesia, Tbk. *International Journal of Applied Business and International Management*, 3(1), 15–25. <https://doi.org/10.32535/ijabim.v3i1.74>
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Breznik, L., & Hisrich, R. D. (2014). Dynamic capabilities vs. innovation capability: are they related? *Journal of Small Business and Enterprise Development*, 21(3), 368–384. <https://doi.org/10.1108/JSBED-02-2014-0018>
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(1), 128. <https://doi.org/10.2307/2393553>
- Ferreira, J., Cardim, S., & Branco, F. (2018). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92. <https://doi.org/10.23919/CISTI.2018.8399271>
- Fitriati, T. K., Purwana, D., & Buchdadi, A. D. (2020). *Dynamic Capabilities and SMES Performance: The Mediating Effect*

- of Innovation (Study of SMES in Indonesia). 27(ICoSHEET 2019), 457–464. <https://doi.org/10.2991/ahsr.k.200723.115>
- Giniuniene, J., & Jurksiene, L. (2015). Dynamic Capabilities, Innovation and Organizational Learning: Interrelations and Impact on Firm Performance. *Procedia - Social and Behavioral Sciences*, 213(09), 985–991. <https://doi.org/10.1016/j.sbspro.2015.11.515>
- Iddris, F. (2016). Innovation capability: A systematic review and research agenda. *Interdisciplinary Journal of Information, Knowledge, and Management*, 11(September), 235–260. <https://doi.org/10.28945/3571>
- Jehangir, M., Dominic, P. D. D., & Downe, A. G. (2011). Business Resources Impact on E-Commerce Capability and E-Commerce Value: An Empirical Investigation. *Trends in Applied Sciences Research*, 6(9), 1063–1070. <https://doi.org/10.3923/tasr.2011.1063.1070>
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard-measures that drive performance. *Harvard Business Review*, 70(1), 71–79.
- Khan, M. A. I., Ahmaruddin, M., Mohammed, S., & Azharuddin, S. (2016). Ecommerce for entrepreneurs: Boon or bane. *International Journal of Applied Business and Economic Research*, 14(1), 173–180.
- Kuang, Z. (2011). E-commerce capabilities and firm performance: A empirical test based on China firm data. *Lecture Notes in Electrical Engineering*, 97(1), 985–992. https://doi.org/10.1007/978-3-642-21697-8_126
- Kuang, Z., & Xu, S. (2008). The research of e-commerce capability and business performance: A resource-based view. *Proceedings - International Conference on Management of e-Commerce and e-Government, ICMeCG 2008*, 82–87. <https://doi.org/10.1109/ICMECG.2008.59>
- Kump, B., Engelmann, A., Kessler, A., & Schweiger, C. (2018). Toward a dynamic capabilities scale: measuring organizational sensing, seizing, and transforming capacities. *Industrial and Corporate Change*, 1–24. <https://doi.org/10.1093/icc/dty054>
- Muafi, M., Siswanti, Y., Diharto, A. K., & Salsabil, I. (2020). Innovation culture and process in mediating human capital supply chain on firm performance. *Journal of Asian Finance, Economics and Business*, 7(9), 593–602. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO9.593>
- Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity. *Industrial Marketing Management*, 73, 193–205. <https://doi.org/10.1016/j.indmarman.2018.02.009>
- Protogerou, A., Caloghirou, Y., & Lioukas, S. (2012). Dynamic capabilities and their indirect impact on firm performance. *Industrial and Corporate Change*, 21(3), 615–647. <https://doi.org/10.1093/icc/dtr049>
- Rehman, K. U., & Saeed, Z. (2015). Impact of Dynamic Capabilities on Firm Performance: Moderating Role of Organizational Competencies. *Sukkur IBA Journal of Management and Business*, 2(2), 18–40. <https://doi.org/10.30537/sijmb.v2i2.92>
- Saeed, K. A., Grover, V., & Hwang, Y. (2005). The relationship of e-commerce competence to customer value and firm performance: An empirical investigation. *Journal of Management Information Systems*, 22(1), 223–256. <https://doi.org/10.1080/07421222.2003.11045835>
- Shafia, M. A., Shavvalpour, S., Hosseini, M., & Hosseini, R. (2016). Mediating effect of technological innovation capabilities between dynamic capabilities and competitiveness of research and technology organisations. *Technology Analysis and Strategic Management*, 28(7), 811–826. <https://doi.org/10.1080/09537325.2016.1158404>
- Singh, P., Wen, G. K., Kee, D. M. H., Yee, G. S., Ying, L. C., & Liem, G.S. (2021). The impact of AirAsia's e-commerce websites on its consumer buying behavior. *International Journal of Tourism and Hospitality in Asia Pacific*, 4(1), 34–42.
- Soto-Acosta, P., Popa, S., & Palacios-Marqués, D. (2016). E-business, organizational innovation and firm performance in manufacturing SMEs: an empirical study in Spain. *Technological and Economic Development of Economy*, 22(6), 885–904. <https://doi.org/10.3846/20294913.2015.1074126>
- Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40–49. <https://doi.org/10.1016/j.lrp.2017.06.007>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Truong, D. D., Nguyen, H., & Duong, T. Q. L. (2020). Factors influencing balanced scorecard application in evaluating the performance of tourist firms. *Journal of Asian Finance, Economics and Business*, 7(5), 217–224. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO5.217>
- Tuan, T. T. (2020). The impact of balanced scorecard on performance: The case of Vietnamese commercial banks. *Journal of Asian Finance, Economics and Business*, 7(1), 71–79. <https://doi.org/10.13106/jafeb.2020.vol7.no1.71>
- Turban, E., Outland, J., King, D., Lee, J. K., Liang, T.-P., & Turban, D. C. (2018). *Social Commerce: Foundations, Social Marketing, and Advertising*. https://doi.org/10.1007/978-3-319-58715-8_8
- Vicente, M., Seabra, C., Abrantes, J. L., & Teixeira, M. S. (2015). Dynamic and operational capabilities for innovation: Their influence on export market effectiveness. *The MacrotHEME Review*, 4(6), 1–13.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*. <https://doi.org/10.1002/smj.4250050207>
- Wigand, R. T. (1997). Electronic commerce: Definition, theory, and context. *Information Society*, 13(1), 1–16. <https://doi.org/10.1080/019722497129241>
- Zhou, S. S., Zhou, A. J., Feng, J., & Jiang, S. (2019). Dynamic capabilities and organizational performance: The mediating role of innovation. *Journal of Management and Organization*, 25(5), 731–747. <https://doi.org/10.1017/jmo.2017.20>