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Resource-Based Framework for Assessing Cooperative Institutional's Global Competitiveness as Small Medium Enterprise (SME)

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***Abstract*---**Indonesian business environment heavily influenced by small-medium enterprise (SME). In embracing Industry 4.0, Indonesian SME must be able to adapt the changing environment and competitive landscape. However, the concept of competitive advantages of SMEs, especially when concerning digital transformation, yet to be clearly defined and evaluated within the industry. Several factors, directly or indirectly, affect and jointly determine the competitive strength of an individual firm. The challenge is to properly identify the specific factors, and how and to what extent they affect firm SME competitiveness. Thus, emerge the necessity to study, understand, and then identify those factors. This research seeks to answer the challenge by using a qualitative approach and the resource-based framework. Six variables discovered through studying state-of-the-art literature, namely Digital Capability, Digital Orientation, Digital Innovation, Resistance, and Government Support that connected with SME Competitiveness. The link between variables were clarified. Resulting in proposal of how those variables entwined with each other. All variables were found to be directly related to Competitiveness, with some of the relations were moderated by Digital Innovation.

***Keywords*---**competitiveness, digital innovation, digital transformation, resource-based view, small-medium enterprise.

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Introduction

COVID-19 pandemic has been haunting micro, small, and medium enterprises (MSMEs) for over 8 months. The massive social distancing policy (PSBB) implemented in various cities in Indonesia produced declining buying power of the people. Indonesian Ministry of Cooperatives and SMEs records three major problems faced by SMEs during pandemic times, namely declining demand, obstructed distribution, and capital-related problems.

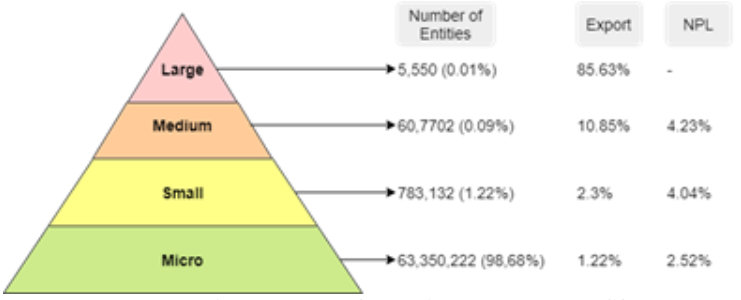

Figure 1. Indonesian SMEs profile

According data in 2018, the number of SMEs in Indonesia categorized into large-scale enterprise (5,550 entities), medium-sized enterprise (60,702 entities), small-sized enterprise (73,132 entities), and the largest group was micro-sized enterprise (63,350,222 entities). Those enterprises were categorized by financial value of their assets and revenue. If an enterprise has over Rp10 billion assets with Rp50 billion revenue or more, it is a large-scale enterprise. If it has Rp500 million – Rp10 billion assets with Rp2.5 billion – Rp50 billion revenue, it is a medium-sized enterprise. If it has Rp50million – Rp500 million assets with Rp300 million – Rp2.5 billion revenue, it is a small-sized enterprise. Micro-sized enterprises are those who own not more than Rp50million with revenues less than Rp300 million (Anggadwita & Mustafid, 2014; Lee et al., 2021).

According to Indonesian Ministry of Cooperatives and SMEs in 2018, the percentage of people absorbed into workforce by SMEs were 97%. SMEs accommodate workforce to escape unemployment. Accordingly, improve their livelihood and buying power. Cooperatives Institutional are one of SME in Indonesia. Cooperatives are business entities consisting of individuals or legal entities, also operating as a people's economic initiatives that build upon familial values. They are the people's economic movement and as a business entity they have a role to bring prosperity to the people. The existence of cooperatives is expected to contribute in building themselves strong and independent foundation to support Indonesia national economy (Man et al., 2002; Crouch & Ritchie, 1999).

In Indonesia, according to Ministry of Cooperatives and SMEs per March 2017, the number of active cooperatives was 150,000 units, with 26 million members or 10% of Indonesia population, with annual business volume of Rp175trillion, Rp8 trillion income (SHU), and absorbing 350,000 workforces. According to data recapitulation of Cooperatives, Ministry of Cooperatives, and SMEs in 2019, the total number of active cooperatives in Indonesia is 123,048 units, with number of

members reaching 22,463,738. Active cooperatives are those who, at the least, perform Annual Meeting (RAT) in three years. Geographically, the number of active cooperatives in Java is very high, reaching 10,000 units per province. The province with the highest number of active cooperatives is Eastern Java (21,757 units). Meanwhile in Sumatra, generally there are 1,000 to 5,000 units of active cooperatives per province, except for Bangka Belitung Island (631 units) and Riau Island (884 units). The other several provinces which does not reach 1,000 units of active cooperatives are Gorontalo (884), West Sulawesi (837), West Papua (608), and the smallest of all is North Kalimantan (476). The number of cooperatives in Indonesia is high. Even though there are quite a lot of them are passive. Almost 81,686 units of cooperatives disbanded in four years due to their inactivity (Rodríguez & Rodríguez, 2005; Peng, 2001).

To embrace Industry 4.0 In 2030, cooperatives must be able to adapt and dynamically transform. Thus, digitalization is crucial to push cooperative as SME competitiveness in marketplace. In order to sustain, SME should establish and improve competitive advantage over their competitors. Competitive advantage is an advantage over competitors gained by offering consumers greater value. It can be developed by growing cooperatives' excellence through sorting out existing problems. In today's Industry 4.0, cooperatives digitalization becomes a requirement to serve members, especially in terms of working capital financing. The digitalization will improve various business process, from money allocation transparency to ease of access and security of members' record. Major problems of cooperatives are stagnant business, obsolete technologies, financial automation, transparent accounting, modernization of Annual Members Meeting (RAT), and difficulties of recruitment due to geographical access (Hinings et al., 2018; von Leipzig et al., 2017).

The concept of competitive advantage needs to be addressed and evaluated. Various factors were influencing competitive advantages, directly or indirectly. The relationship between them is in need to be furtherly studied. Owing to the fact that internal strength of cooperatives will create its' competitive advantage in the industry. The activity of cooperatives sourced from their internal resource strength, whom create competitiveness in the industry. Thus, a study to develop model to evaluate global competitiveness of the cooperatives will contribute to escalate cooperatives' competitiveness based on their resources (Nylén & Holmström, 2015; Hinings et al., 2018).

Method

This research used a qualitative approach and its focus is on the resource-based framework for Assessing Cooperative Institutional's Global Competitiveness as SME: Digital Capability, Digital Orientation, Digital Innovation, Resistance, Government Support, and Competitiveness. The data are taken using desk research and documentation study.

Results and Discussion

Digital innovation and competitiveness

Generally, digital innovation defined as creation of market offering, business process, or business model using digital technology (Distanont & Khongmalai, 2020). Usage of digital technology becomes main point of the definition, ignoring the various kind of products and/or service generated from the innovation process. Digital innovation can be explained using several dimension, such as digital solution quality, digital solution features, digital solution application/implemantion, and product platform differentation from competitor(s) (Adeoye et al., 2019; Waheeduzzaman & Ryans, 1996). Creation of inimitable skill or capability is a primer reason of creating competitive advantages through firm's innovation activities (Paladino, 2007). The competitive advantage could materialized in the form of capability to produce products and/or services with lower price and better quality from competitors. In the context of SMEs, digital technology, which becomes the main focus of innovation, found to be affecting the firm's performance (Asunka, 2016). It is achieved through reducing communication and transaction cost, and enhancing relationship with consumer and supplier (Hendriarto, 2021; Ansari et al., 2021).

Competitive advantage is a multi-dicipline concept of comparative advantage, price competitiveness, and strategic perspectives applied in various level, from firm to industry to macroeconomics (Bonjour & Kraler, 2015; Helfat & Winter, 2011). Currently SMEs' competitive advantage becomes concurring discussion within research community. Generally, it should belong withing the firm level concept of competitive advantage. However, the overall aspect of the concept won't entirely fit the SMEs context. A research found that specifically in SMEs context, competitive advantage could be explained through profitability, efficiency, and growth (Quintana-García & Benavides-Velasco, 2008).

The creation and perservation of competitive advantage influenced with various factors. Government support, in the form of financial incentives, found to be positively influencing firm's competitive advantage (Teece et al., 1997; Sugandini et al., 2020). In the context of digital transformation, digital capability also significantly giving positive influence to competitive advantage, given the moderation of firm's digital innovation (Adeoye et al., 2019; Sugandini et al., 2020). Aside from moderating relationship in digital capability, several research found to support the discourse of positive relationship between innovation and competitive advantage (Paladino, 2007; Asunka, 2016; Day, 1999). Based on the explanation above, there are a linking model:

- Digital Innovation to Competitiveness.

Digital capability

Digital capability observed in various levels, such as managerial capability and organizational capability. The dynamic managerial capabilities (DMC) referes to the capabilities of managers to build, integrate, and manage organizational resources and competencies (Gatignon & Xuereb, 1997). There are three main

dimension of DMC, namely managerial cognition, managerial social capital, and managerial human capital (Hartono & Halim, 2020; Liu et al., 2021). While the organizational capability being understand as the capability of an organization in conducting certain activities with realiability and obtaining the minimal level of satisfaction needed (Tsou et al., 2014). In the context of SMEs' digital transformation, there are three main dimension supporting the success of transformation, namely digital business team, platform utilization capability, and business development capability (Ajzen et al., 1991).

Technological skills and competencies are important resources required for the innovation process (Osman, 2014). No matter what technology has been used in an organization, its use and services still need to be managed effectively and efficiently (Spanjol et al., 2011). In the context of digital products, digital capabilities are defined as the company's skills, talents and expertise for digital technology in new product development. Successful digital transformation, supported by an organization to develop capabilities in many different fields (Wei & Liu, 2015). Companies need to have the capability to manage and make the best use of digital technology in the innovation process because the capability to accelerate the innovation process by integrating and mobilizing both human and technological strength and resources (Adeoye et al., 2019). Levallet & Chan (2018), identify two main digital capabilities, namely well-developed information management capabilities and IT infrastructure. Dynamic capability is part of the competency that allows companies to create new products and processes, as well as factors in changing market conditions (Dobeš et al., 2017). Information technology capability is seen as something inherent in the company's routine processes and activities that allow the company to create value from its assets (Wisenthige & Guoping, 2016). Although significant research has supported the capability-technology innovation relationship, only a few studies support the impact of digital capabilities on digital innovation. Research by Westerman et al. (2012), revealed that digital capabilities are fundamental in which companies can change customer experiences, operational processes, and business models. Researchers found skills to be an obstacle to digital transformation (Oviogun & Veerdee, 2020; Ginaya et al., 2020).

Research from Khin et al. (2018), states that digital orientation and digital capability have a positive effect on digital innovation and also that digital innovation mediates the effect of technology orientation and digital capability on financial and non-financial performance. Digital capability and digital orientation are compatible and complement each other in achieving product innovation because innovation is proven to be triggered by technology orientation [23] and enabled by technological capability (Renko et al., 2009). Research from Khin et al. (2018), states that digital orientation and digital capability have a positive effect on digital innovation and also that digital innovation mediates the effect of technology orientation and digital capability on financial and non-financial performance. While research from Yasa et al. (2019), shows the results of regression tests of the effect of digital capabilities on digital innovation with Sig. 0.000 <0.05 that is mean digital capability has a positive and significant effect on digital innovation. IT capability positively affects knowledge breadth and knowledge depth, which consequently improves digital innovation. Furthermore, the study reveals the negative moderating effects of enforcement inefficiency on IT

capability - knowledge breadth relationship, and the negative moderating effects of government support on IT capability - knowledge depth relationship (Aryani Rahayuni, 2016; Suryasa et al., 2019). Based on the explanation above, there are a linking model:

- Digital Capability to Digital Innovation
- Digital Capability to Competitiveness

Digital orientation

Digital orientation is a new concept where there is little literature to support it. Therefore, we refer to a study conducted by Khin et al. (2020), where digital orientation is conceptualized based on the literature on technological orientation, because of the similarities between the two concepts. He refers to the concept of technology orientation in a study developed by Gatignon & Xuereb (1997), which describes a technology-oriented company as an organization that has the ability to master important technologies and use them in new product development. Then he conceptualized digital orientation as technology orientation in the context of digital technology and defined it as "the company's commitment to the application of digital technology to deliver innovative products, services and solutions".

The literature shows the relationship between digital orientation and innovation as well as competitiveness. Several studies state that technological advances shorten the product life cycle, thus encouraging companies to always improve their technological expertise to compete in their industry (Li et al., 2018). Technology-oriented companies always focus on being able to acquire new technology and integrate it with the various skills and technologies they currently have, so as to be able to proactively generate new product ideas (Lu & Ramamurthy, 2011; Anwar & Li, 2021). Khin et al. (2020), highlighted several research results on innovation and technology orientation. According to him, several researchers have succeeded in finding a positive relationship between technology orientation and the presence of product innovation, for example studies (Hortinha et al., 2011). However, other studies have found a conditional relationship, for example the study (Zhou et al., 2005; Spanjol et al., 2011; Salavou, 2005). Given some inconsistent findings, Khin et al. (2012), call for more empirical tests of the positive influence of technology orientation on innovation.

Based on the RBV theory, a technology-oriented company has an advantage in generating innovation because it is committed to using new technology in order to develop innovative products. Without adopting digital technology, organizations will find it difficult to present innovative solutions that are in line with current business trends. Technology orientation is considered very important for organizations to be able to produce innovative products that are able to meet the needs and desires of consumers (Carcary et al., 2016). The presence of initiatives to produce product innovations will also increase positive technological developments related to the exploration and exploitation of innovation competencies (Kim & Lee, 2011). Therefore, technology-oriented organizations will have the possibility to produce product innovations and be able to compete with competitors (Renko et al., 2009; Kolisnichenko, 2017). Based on this

rationalization and literature, we argue that digital-oriented companies are more likely to produce digital innovation and are competitive in their industry. Based on literature review above, there are a linking model:

- Digital Orientation to Digital Innovation
- Digital Orientation to Competitiveness

Resistance

An approach to understand of innovation resistance came from observing individual's attitudes towards adopting innovation. This mainly derived from the theory of planned behavior Adner & Helfat (2003), which developed into two form of active and passive innovation resistance (Josep et al., 2010; Neisser, 2014). Joseph (2010), explained that active resistance comes in to forms, namely denial rejection to adopt innovation and postponement of adoption. Moreover, an individual can also display passive resistance in the form of unaware of the innovation or disinterested (aware of the technology but unaffected by it) with the innovation. Innovation resistance – whether active or passive – generally posing negative effect towards adoption of innovation, with active innovation resistance commonly driven by product-specific barriers (Josep et al., 2010; Wahyuningtyas et al., 2021). An empirical case in SMEs shows that top management knowledge, manager(s) support, and organization readiness become the three main determinants of adoption resistance attitude (Yadav et al., 2016; Slater et al., 2007). Further empirical study shows that innovation adoption posing positive influence over competitive advantage of SMEs (Day, 1999; Heidenreich Spieth, 2013). This indicates the indirect relationship between innovation resistance and competitive advantage, that yet to be clarified.

Michael Hammer and James Champy wrote that the global economy has an impact on customers, competition, and change. Change itself is something that must be faced by a person and organization in a dynamic environment. The changes that occur often result in resistance from all parties involved or affected by these changes. Robbins et al. (2017), mentions the reasons for resistance both from individuals and groups and organizations. The causes of individual resistance include habits, security, fear of uncertainty, economic factors and perceptions. Meanwhile, the causes of group and organizational resistance include inertia barriers, limited focus of change, threats of expertise, power relations and resource allocation. Regarding digital resistance, research by Shirish & Batuekueno (2021), states that IT resistance is influenced by switching costs and behavior intention even though they have a positive attitude toward new technology, which can also retard new technology renewals due to standard user adoption. Then according to Liu et al. (2020), states that Uncertainty of gaining legitimacy from organizational change not only results in resistance to change through the mediating variable - organizational readiness for change but also is an important influencing factor for enterprises' choices of change strategy. Organizations members perceive a high level of uncertainty of gaining legitimacy from an organizational change, their resistance to the change will be induced, and this relationship is mediated by organizational readiness for change that represents members' attitudes toward change (Zahra, 2008). Based on the literature above, there are a linking model:

- Resistance to Digital Innovation
- Resistance to Competitiveness

Government support

Government is one of the prominent stakeholder in the SMEs environment. They offer general and/or infrastructure support to the industry or SMEs innovation activities. Which exist in the form of technical and scientific, consultation, financial, information, learning and development, and export support (Nambisan et al., 2017). Policy and financial support are two main intervention from government towards firm's innovation activities. Government's financial supports allocated to research and development (R&D) generally notable for positively and significantly affecting firm's output and innovation performance (Urbancova, 2013; Richardson et al., 2003). Although yet to be statistically proved, it also positively affecting a firm's innovation rate (Urbancova, 2013). Government's alternative support, namely the development of regional innovation-supporting policy also positively realted to a firm's innovation performance (Richardson et al., 2003).

In the context of SMEs, government's financial support found to be influencing SME's competitive advantage (Sugandini et al., 2020; Joachim et al., 2018). Another research contintue to confirm the relationship between financial and non-financial support from government to SMEs are positively influencing SMEs' financial performance and competitive advantage (Teece et al., 1997). Based on the literature above, we propose a linking model:

- Government Support to Digital Innovation
- Government Support to Competitiveness

Conclusion

This paper studied how *state-of-the-art* researches view the relationship between digital innovation, digital capabilities, digital orientation, resistance, government support, and competitiveness in context of SMEs. Resulting in proposal of how those variables entwined with each other, as depicted in Figure 2. Although further empirical research could complement the confirmation of each link between studied variables, the result of this research was a first step on mapping the surrounding variables of SMEs' competitiveness.

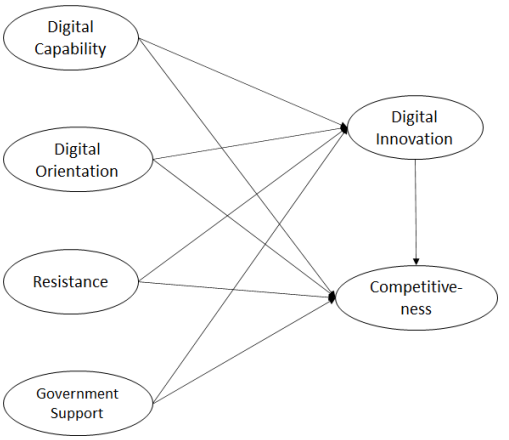

Figure 2. Resource-based framework for assessing cooperative institutional's global competitiveness as small medium enterprise (SME)

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References

Adeoye, I. A., Agbawodikeizu, J., & Egwakhe, A. J. (2019). Innovation Adoption Determinants and Competitive Advantage of Selected SMEs in Ado-Ota, Ogun State, Nigeria. *International Journal of Advanced Engineering, Management and Science (IJAEMS)*, *5*(4), 282-289.

Adner, R., & Helfat, C. E. (2003). Corporate effects and dynamic managerial capabilities. *Strategic management journal*, *24*(10), 1011-1025.

Ajzen, I., Netemeyer, R., Van Ryn, M., & Ajzen, I. (1991). The theory of planned behavior. Organ Behav Hum Dec. 1991; 50: 179-211. *External Resources Crossref (DOI) ISI Web of Science*.

Anggadwita, G., & Mustafid, Q. Y. (2014). Identification of factors influencing the performance of small medium enterprises (SMEs). *Procedia-Social and Behavioral Sciences*, *115*, 415-423. https://doi.org/10.1016/j.sbspro.2014.02.448

Ansari, M. R., Navratan, N., & Umamaheswari, K. M. (2021). A study of awarding student achievement using blockchain. *Linguistics and Culture Review*, *5*(S3), 823-836. https://doi.org/10.21744/lingcure.v5nS3.1629

Anwar, M., & Li, S. (2021). Spurring competitiveness, financial and environmental performance of SMEs through government financial and non-financial support. *Environment, Development and Sustainability*, *23*(5), 7860-7882.

Aryani, I. G. A. I., & Rahayuni, N. K. S. (2016). Innovation of teaching and learning english applied to animal sciences' student with the combination of computer media and audio visual. *International Journal of Linguistics, Literature and Culture*, *2*(1), 1-7. Retrieved from https://sloap.org/journals/index.php/ijllc/article/view/78

Asunka, B. A. (2016). The significance of information and communication technology for SMEs in rural communities. *Journal of Small Business and Entrepreneurship Development*, *4*(2), 29-38.

Bonjour, S., & Kraler, A. (2015). Introduction: Family migration as an integration issue? Policy perspectives and academic insights. *Journal of Family Issues*, *36*(11), 1407-1432.

Carcary, M., Doherty, E., & Conway, G. (2016, September). A dynamic capability approach to digital transformation: a focus on key foundational themes. In *The European Conference on Information Systems Management* (p. 20). Academic Conferences International Limited.

Crouch, G. I., & Ritchie, J. B. (1999). Tourism, competitiveness, and societal prosperity. *Journal of business research*, *44*(3), 137-152. https://doi.org/10.1016/S0148-2963(97)00196-3

Day, G. S. (1999). Misconceptions about market orientation. *Journal of market-focused management*, *4*(1), 5-16.

Distanont, A., & Khongmalai, O. (2020). The role of innovation in creating a competitive advantage. *Kasetsart Journal of Social Sciences*, *41*(1), 15-21.

Dobeš, K., Kot, S., Kramoliš, J., & Sopkova, G. (2017). The perception of governmental support in the context of competitiveness of SMEs in the Czech Republic. *Journal of Competitiveness*.

Gatignon, H., & Xuereb, J. M. (1997). Strategic orientation of the firm and new product performance. *Journal of marketing research*, *34*(1), 77-90.

Ginaya, G., Kanca, I. N., & Sri Astuti, N. N. (2020). Designing problem-based learning (PBL) model for tourism vocational education in 4.o industry. *International Journal of Linguistics, Literature and Culture*, *6*(1), 14-23. https://doi.org/10.21744/ijllc.v6n1.808

Hartono, H., & Halim, E. (2020, August). The Effect of Digital Capability on Competitiveness through Digital Innovation of E-Travel Business in Indonesia. In *2020 International Conference on Information Management and Technology (ICIMTech)* (pp. 615-620). IEEE.

Heidenreich, S., & Spieth, P. (2013). Why innovations fail—The case of passive and active innovation resistance. *International Journal of Innovation Management*, *17*(05), 1350021.

Helfat, C. E., & Winter, S. G. (2011). Untangling dynamic and operational capabilities: Strategy for the (N) ever-changing world. *Strategic management journal*, *32*(11), 1243-1250.

Hendriarto, P. (2021). Understanding of the role of digitalization to business model and innovation: economics and business review studies. *Linguistics and Culture Review*, *5*(S1), 160-173. https://doi.org/10.21744/lingcure.v5nS1.1347

Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. *Information and Organization*, *28*(1), 52-61. https://doi.org/10.1016/j.infoandorg.2018.02.004

Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. *Information and Organization*, *28*(1), 52-61. https://doi.org/10.1016/j.infoandorg.2018.02.004

Hortinha, P., Lages, C., & Lages, L. F. (2011). The trade-off between customer and technology orientations: impact on innovation capabilities and export performance. *Journal of International Marketing*, *19*(3), 36-58.

Joachim, V., Spieth, P., & Heidenreich, S. (2018). Active innovation

resistance: An empirical study on functional and psychological barriers to innovation adoption in different contexts. *Industrial Marketing Management*, *71*, 95-107.

JoSEP, A. D., KAtz, R., KonWinSKi, A., Gunho, L. E. E., PAttERSon, D., & RABKin, A. (2010). A view of cloud computing. *Communications of the ACM*, *53*(4), 50-58.

Joseph, G. G. (2010). *The crest of the peacock*. Princeton University Press.

Khin, M. M., Nair, A. S., Babu, V. J., Murugan, R., & Ramakrishna, S. (2012). A review on nanomaterials for environmental remediation. *Energy & Environmental Science*, *5*(8), 8075-8109.

Khin, N., Peh, W., Tham, W., Lam, W., Wang, M., Siow, T., ... & Yip, C. (2018). Biochemical and radiological inflammatory markers in oesophageal squamous cell carcinoma treated with radical chemoradiation. *Annals of Oncology*, *29*, v11.

Khin, P. P., Cha, S. H., Jun, H. S., & Lee, J. H. (2020). A potential therapeutic combination for treatment of COVID-19: synergistic effect of DPP4 and RAAS suppression. *Medical hypotheses*, *144*, 110186.

Kim, M., & Lee, S. Y. (2011). The effects of government financial support on business innovation in South Korea. *Asian Journal of Technology Innovation*, *19*(1), 67-83.

Kolisnichenko, P. (2017). Government support for small and medium-sized business and innovative activities. *Baltic journal of economic studies*, *3*(4).

Lee, C. M. J., Che-Ha, N., & Alwi, S. F. S. (2021). Service customer orientation and social sustainability: The case of small medium enterprises. *Journal of Business Research*, *122*, 751-760. https://doi.org/10.1016/j.jbusres.2019.12.048

Levallet, N., & Chan, Y. E. (2018). Role of Digital Capabilities in Unleashing the Power of Managerial Improvisation. *MIS Quarterly Executive*, *17*(1).

Li, L., Su, F., Zhang, W., & Mao, J. Y. (2018). Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*, *28*(6), 1129-1157.

Liu, H., Zhou, J., Liu, H., & Xin, B. (2021). Is the uncertainty of gaining legitimacy from organizational change an antecedent of employees' resistance to change?. *Chinese Management Studies*.

Lu, Y., & K.(Ram) Ramamurthy. (2011). Understanding the link between information technology capability and organizational agility: An empirical examination. *MIS quarterly*, 931-954.

Man, T. W., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of business venturing*, *17*(2), 123-142. https://doi.org/10.1016/S0883-9026(00)00058-6

Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing innovation management research in a digital world. *MIS quarterly*, *41*(1).

Neisser, U. (2014). *Cognitive psychology: Classic edition*. Psychology Press.

Nylén, D., & Holmström, J. (2015). Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation. *Business Horizons*, *58*(1), 57-67. https://doi.org/10.1016/j.bushor.2014.09.001

Osman, J. (2014). An empirical investigation into the significance of intellectual capital and strategic orientations on innovation capability and

firm performance in Malaysian information and communications technology (ICT) small-to-medium enterprises (SMEs). *Management, RMIT University*.

Oviogun, P. V., & Veerdee, P. S. (2020). Definition of language and linguistics: basic competence. *Macrolinguistics and Microlinguistics*, *1*(1), 1–12. Retrieved from https://mami.nyc/index.php/journal/article/view/1

Paladino, A. (2007). Investigating the drivers of innovation and new product success: a comparison of strategic orientations. *Journal of Product Innovation Management*, *24*(6), 534-553.

Peng, M. W. (2001). The resource-based view and international business. *Journal of management*, *27*(6), 803-829. https://doi.org/10.1016/S0149-2063(01)00124-6

Quintana-García, C., & Benavides-Velasco, C. A. (2008). Innovative competence, exploration and exploitation: The influence of technological diversification. *Research policy*, *37*(3), 492-507.

Renko, M., Carsrud, A., & Brännback, M. (2009). The effect of a market orientation, entrepreneurial orientation, and technological capability on innovativeness: A study of young biotechnology ventures in the United States and in Scandinavia. *Journal of Small Business Management*, *47*(3), 331-369.

Renko, M., Carsrud, A., & Brännback, M. (2009). The effect of a market orientation, entrepreneurial orientation, and technological capability on innovativeness: A study of young biotechnology ventures in the United States and in Scandinavia. *Journal of Small Business Management*, *47*(3), 331-369.

Richardson, V. J., Subramani, M., & Zmud, R. W. (2003). Benefiting from information technology investments: The role of IT conversion capability. *Second Round Review at MIS Quarterly*.

Robbins, M., Judge, A., & MacLachlan, I. (2009). siRNA and innate immunity. *Oligonucleotides*, *19*(2), 89-102.

Rodríguez, J. L., & Rodríguez, R. M. G. (2005). Technology and export behaviour: A resource-based view approach. *International business review*, *14*(5), 539-557. https://doi.org/10.1016/j.ibusrev.2005.07.002

Salavou, H. (2005). Do customer and technology orientations influence product innovativeness in SMEs? Some new evidence from Greece. *Journal of marketing management*, *21*(3-4), 307-338.

Shirish, A., & Batuekueno, L. (2021). Technology renewal, user resistance, user adoption: status quo bias theory revisited. *Journal of Organizational Change Management*.

Slater, S. F., Hult, G. T. M., & Olson, E. M. (2007). On the importance of matching strategic behavior and target market selection to business strategy in high-tech markets. *Journal of the Academy of Marketing Science*, *35*(1), 5-17.

Spanjol, J., Qualls, W. J., & Rosa, J. A. (2011). How many and what kind? The role of strategic orientation in new product ideation. *Journal of Product Innovation Management*, *28*(2), 236-250.

Spanjol, J., Qualls, W. J., & Rosa, J. A. (2011). How many and what kind? The role of strategic orientation in new product ideation. *Journal of Product Innovation Management*, *28*(2), 236-250.

Sugandini, D., Effendi, M. I., & Istanto, Y. (2020). The Resistance of SMEs in Adopting Social Media: TOE Model.

Sugandini, D., Effendi, M. I., & Istanto, Y. (2020, October). The resistance of social media adoption to SMEs in Yogyakarta: Exploratory Study. In *Proceeding of LPPM UPN "Veteran" Yogyakarta Conference Series 2020–Economic and Business Series* (Vol. 1, No. 1, pp. 267-273).

Suryasa, W., Sudipa, I. N., Puspani, I. A. M., & Netra, I. (2019). Towards a Change of Emotion in Translation of Kṛṣṇa Text. Journal of Advanced Research in Dynamical and Control Systems, 11(2), 1221-1231.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, *18*(7), 509-533.

Tsou, H. T., Chen, J. S., & Liao, W. H. (2014). Market and technology orientations for service delivery innovation: the link of innovative competence. *Journal of Business & Industrial Marketing*.

Urbancova, H. (2013). Competitive advantage achievement through innovation and knowledge. *Journal of competitiveness*, *5*(1).

von Leipzig, T., Gamp, M., Manz, D., Schöttle, K., Ohlhausen, P., Oosthuizen, G., ... & von Leipzig, K. (2017). Initialising customer-orientated digital transformation in enterprises. *Procedia Manufacturing*, *8*, 517-524. https://doi.org/10.1016/j.promfg.2017.02.066

Waheeduzzaman, A. N. M., & Ryans, J. K. (1996). Definition, perspectives, and understanding of international competitiveness: A quest for a common ground. *Competitiveness Review: An International Business Journal*.

Wahyuningtyas, R., Disastra, G. M., & Rismayani, R. (2021). Digital Innovation and Capability to Create Competitiveness Model of Cooperatives in Bandung, Indonesia. *Jurnal Manajemen Indonesia*, *21*(2), 171-182.

Wei, J., & Liu, Y. (2015). Government support and firm innovation performance: Empirical analysis of 343 innovative enterprises in China. *Chinese Management Studies*.

Westerman, G., Tannou, M., Bonnet, D., Ferraris, P., & McAfee, A. (2012). The Digital Advantage: How digital leaders outperform their peers in every industry. *MITSloan Management and Capgemini Consulting, MA*, *2*, 2-23.

Wisenthige, K., & Guoping, C. (2016). Firm level competitiveness of small and medium enterprises (SMEs): analytical framework based on pillars of competitiveness model. *International research journal of management, IT and social sciences*, *3*(9), 61-67.

Yadav, R., Sharma, S. K., & Tarhini, A. (2016). A multi-analytical approach to understand and predict the mobile commerce adoption. *Journal of enterprise information management*.

Yasa, I. C., Tabak, A. F., Yasa, O., Ceylan, H., & Sitti, M. (2019). 3D-Printed microrobotic transporters with recapitulated stem cell niche for programmable and active cell delivery. *Advanced Functional Materials*, *29*(17), 1808992.

Zahra, S. A. (2008). Being entrepreneurial and market driven: implications for company performance. *Journal of strategy and management*.

Zhou, K. Z., & Li, C. B. (2010). How strategic orientations influence the building of dynamic capability in emerging economies. *Journal of Business Research*, *63*(3), 224-231.

Zhou, K. Z., Yim, C. K., & Tse, D. K. (2005). The effects of strategic orientations on technology-and market-based breakthrough innovations. *Journal of marketing*, *69*(2), 42-60.