

Digital Capability and Digital Innovation: The Impact of Small Business Sustainability During Pandemic Covid 19

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Abstrak. Penelitian ini bertujuan untuk menjelaskan dan menganalisis pengaruh kapabilitas digital terhadap inovasi digital serta dampaknya terhadap keberlangsungan usaha kecil. Penelitian ini diklasifikasikan sebagai *explanatory research* dengan menggunakan pendekatan kuantitatif. Penelitian ini melibatkan 153 pelaku UKM kreatif di Kota Surabaya dengan tiga sektor unggulan, UKM sektor *fashion*, kuliner dan desain interior. Teknik sampling menggunakan *proportional random sampling*, penyebaran kuesioner dilakukan dengan menggunakan *google form*. Hasil penelitian menunjukkan bahwa kapabilitas digital berpengaruh signifikan terhadap inovasi digital; baik kapabilitas digital maupun inovasi digital juga terbukti secara langsung mampu meningkatkan Business Sustainability pelaku usaha kecil selama pandemi Covid 19. Kapabilitas digital akan mampu meningkatkan keberlangsungan usaha kecil lebih besar jika diwaktu yang bersamaan pelaku usaha juga meningkatkan inovasi digital dalam mengelola usahanya, baik inovasi proses bisnis, inovasi pengelolaan organisasi, maupun inovasi dalam pemasaran. Ketiga inovasi tersebut mampu menjadi mediasi dan memperkuat pengaruh kapabilitas digital terhadap keberlangsungan usaha UKM.

Kata kunci: Kapabilitas Digital; Inovasi Digital; Keberlangsungan Usaha; UKM; Covid 19

Abstract. This study aims to explain and analyze the effect of digital capabilities on digital capabilities and the sustainability of small businesses. This research is classified as *explanatory research* using a quantitative approach. This study involved 153 creative small businesses in Surabaya City with three leading sectors: *fashion*, *culinary*, and *interior design*. The sampling technique used *proportional random sampling*. The questionnaire was distributed using *Google Forms*. The study results show that Digital Capability has a significant effect on Digital Innovation; Digital Capability and Digital Innovation have also been directly proven to improve the Business Sustainability of small business owners during the Covid 19 pandemic. Digital Capability will increase the sustainability of small and large businesses if, at the same time, business owners also increase Digital Innovation in managing both the innovation process, organizational innovation management, and innovation in marketing. These three innovations can mediate and strengthen the influence of Digital Capability on SMEs' Business Sustainability.

Keywords: Digital Capability; Digital Innovation; Business Sustainability; SMEs; Covid 19.

Introduction

The current disruptive era has presented opportunities and challenges for business people. The organization's ability to know, understand and manage various forms of technological and knowledge development will determine how accelerated the business organization is being managed. Without innovative and up-to-date ideas and ideas, the organization will be eroded by change. The company's competitive advantage is no longer determined by the ownership and use of conventional production factors (tangible assets) but rather on the use of production factors based on knowledge, innovation, and technology (intangible assets) as the primary resources (Chang and Hsieh, 2011). On the other hand, the Covid 19 pandemic has also forced business owners to be more adaptive and accelerative to changes in people's behavior, switching from conventional to digital.

The MSME sector is the largest business sector that has felt the impact of the Covid-19 pandemic. A survey from the Asian Development Bank (2020) shows that almost 49% of the MSME sector in Indonesia is temporarily closed. As for MSMEs still carrying out their business activities, most sales fell by more than 30%. As many as 50% more Micro and Small Business Owners are also forced to temporarily lay off their employees, while Medium Enterprises prefer to reduce working hours. Meanwhile, employees working in the MSME sector are also forced to experience delays in paying salaries. The government's policy to control the spread of the Covid-19 virus through physical restrictions on the community has hit various economic activities, except for economic actors who can adapt and move to digital platforms.

Maedche (2016) argues that the biggest challenge for business owners in the digital era is not the ability to follow technological trends, innovations, and changes in consumer behavior that are developing but the ability of business owners to adapt culture, mindset, and competencies by digital ways of working. One of the things produced in the era of digital technology is data. Currently, data is the main foundation for companies in creating value. The company's ability to collect, analyze, and utilize data will determine the company's bargaining power in the eyes of stakeholders. The company's ability to create digital innovation can be done by increasing digital maturity, which is critical to digital capabilities (Prakasa *et al.*, 2020). Therefore, digital competence is needed, which is the basis for

business owners in producing digital-based innovations. Khin and Ho (2019) found that digital competence has a significant effect on the creation of digital innovation and can improve company performance to impact business continuity. Ullah *et al.* (2021) also show that IT Capability significantly influences business continuity. The strength of digital competence will determine the company's strength in generating innovation. Digital competence involves more than just digital knowledge, such as using devices, applications, and online media. Digital competence is closely related to ICT communication skills, information skills, special knowledge and attitudes regarding legal, ethical, privacy, security aspects, understanding of the role of ICT in society, and a balanced attitude to technology (Janssen *et al.*, 2013). There are two critical successes to digital capabilities: first, well-developed information management capabilities. Second is the IT infrastructure flexibility (Levallet & Chan, 2018). Although there is still limited literature discussing the relationship between digital capability and digital innovation, the positive influence of technological capability on innovation has received strong support from academics (among them (Zawislak *et al.*, 2013; Zhou & Wu, 2010). As with technology capabilities in the digital context, digital capability is essential in producing digital innovation. The development of digital products and services will significantly depend on how well an organization manages its digital technology (or it is part of its digital capability).

This research uses resource-based view theory and dynamic capability theory, underlies the relationship between digital capability and innovation variables. Digital capabilities are described as the ability of an organization to create new products and processes and respond to changing market conditions (Teece and Pisano, 1994). It is very relevant to the ability of small business owners to optimize their resources (resource-based view theory) and their ability to adapt to all changes (dynamic capability theory). Research linking digital capability with digital innovation in the MSME sector is still scarce. This study also uses the theory of planned behavior as the theory underlying digital innovation. Changing the behavior of small business owners can be identified in creating digital-based innovations. The birth of the digital era provides both opportunities and challenges for Indonesia. A report from Hootsuite (2020) shows that Indonesian people are pretty adaptive in the use of digital technology, especially the use of mobile phones (66.6%), the internet (59.5%), and social media (53.6%). In addition, the Covid-19 pandemic has also changed consumer behavior from conventional to digital. It means that the market opportunity for business owners to take advantage of digital platforms in managing their business is quite significant and potential. However, the IMD World Competitiveness Center survey (2020) shows that Indonesia's Digital Competitiveness ranking ranks 56 out of 63 countries. At the ASEAN level, Indonesia lags far behind Singapore (2), Malaysia (26), and Thailand (39)). As is known, digital competitiveness is measured by knowledge, technology, and future-readiness factors. Although Indonesia is experiencing an increase in future readiness for digital transformation, this is not followed by an increase in knowledge and technology to support Indonesian society's rapid flow of digital transformation. It means that digital capability and digital innovation are essential factors in the current digital economy era.

Surabaya City, one of the pilot projects of Smart City development, has a digital-based development orientation. The city of Surabaya is ranked 6th out of 157 cities/districts, which have a digital competitiveness index of 58.9 which is respectively below Jakarta (ranked 1), Bandung City, Bekasi City, Denpasar City, and South Tangerang City (EV-DCI, 2021). Nevertheless, the biggest challenge in efforts to increase the digital competitiveness of the City of Surabaya is the readiness of human resources to adapt to the digital world. Even though the Surabaya City government has built an excellent digital infrastructure, there are problems related to digital capability. This study aims to explore the digital capacity of small business owners to increase digital innovation to impact business continuity and have business resilience in the era of technological disruption. This research will involve leading creative small business owners in Surabaya, namely the fashion, culinary, and interior design sectors.

Literature Review

Digital Capability

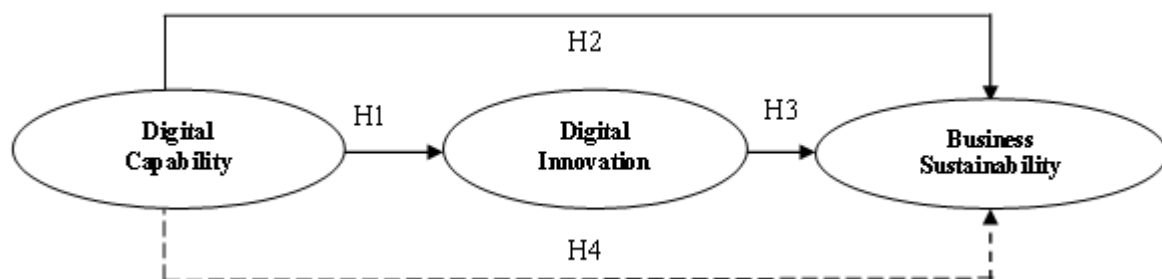
Digital technology capability is defined as a company's technological capability to formulate and develop related products and processes (Khin and Ho, 2019). Digital capability is a company's fundamental to changing the customer experience, operational processes, and business models (Westerman *et al.*, 2012). Digital competence involves more than just digital knowledge, such as using devices, applications, and online media. Digital competence is closely related to communication skills with ICT, information skills, special knowledge and attitudes regarding legal, ethical, privacy, security aspects, understanding of the role of ICT in society, and a balanced attitude toward technology. A business must have the capability to manage and utilize digital technology and possible innovation processes and aim to improve performance because the capability can integrate and mobilize strength, human resources, and technology (Liu, Chen, and Chou, 2011). This research uses measuring tools based on (Khin and Ho, 2019; Zhou & Wu, 2010), namely the ability to obtain digital technology, the ability to identify new digital opportunities, the ability to master the latest digital technology, the company's ability to develop innovative products/services/processes with using digital technology.

Digital Innovation

Digital innovation is contextualized into innovative digital solutions that transform other organizations, products, services, and businesses". "Hence, we define digital innovation as "the development of new products, services, or solutions by using digital technology (Khin and Ho, 2019). It means that digital innovation emphasizes the novelty aspect or the development of new products, services, or services and new solutions obtained by applying digital technology. The innovation in this research is digital innovation supported by digital technology in the process. In the context of small businesses, Baker and Sinkula (2005) identified that digital technology used in small and medium-sized businesses is more related to the use of the internet (IoT/Internet of things) and the use of software (including software to improve internet security) to improve business efficiency.

Business Sustainability

Colbert and Kurucz (2007) define organizational sustainability as a condition or capability that allows an organization to continue to operate or remain in its industry. In more detail, Brent and Labuschagne (2007) define sustainability in a business context as adopting business activities and strategies to meet the organization's current needs and its stakeholders while paying attention to and protecting all resources that will be needed in the future. That is, sustainability is an approach to creating long-term value. Therefore, it can be said that sustainability is a fundamental issue for all organizations in all industries, including small and medium enterprises (SMEs). Several indicators can be used to measure the sustainability of an organization. Brent and Labuschagne (2007) identified environmental, economic, and social sustainability indicators. At the same time, Bourlakis *et al.* (2014); Liu *et al.* (2018) states that business continuity can be measured by financial consumption (financial efficiency of SMEs), flexibility (the ability of companies to manage SMEs), and quality (the ability of SMEs to maintain and improve the quality of H.R. and SME operations).



Picture1
Hypothesis Model

Method

This research is explanatory. The unit of analysis of this research is the organization, namely small businesses in Surabaya. Considerations for choosing the research location include: (1) Surabaya City is one of the cities with the relatively rapid development of small industries and helps the community's economy as well as strengthens the city's position as an Industrial City; (2) During the Covid 19 pandemic, the City of Surabaya was one of the areas that had a high rate of spread of Covid 19 in East Java so that various policies restricting community activities had an impact on the cessation of most SME activities. The criteria for this research population are small businesses with 5-19 members, including in the leading sectors (fashion, culinary, and interior design) in Surabaya. They have been operating for at least two years to measure business sustainability. The total population according to these criteria is 738 small business owners. The sample size in this study was calculated using the Slovin formula and using an error tolerance of 7.5%. Furthermore, this study uses probability sampling with a proportional random sampling technique. The number of respondents involved in this study was 153 respondents as the research sample. Data was collected through online questionnaires. Furthermore, data analysis used Partial Least Square with SEM variance-based with the help of SmartPLS software.

Result

Table 1
Digital Capability Outer Model

Variable	Indicator	Item	Convergent Validity		Reliability	
			Loading First Order	AVE	Composite Reliability	Cronbach's Alpha
<i>Digital Capability (DC)</i>	<i>ICT Proficiency (DC1)</i>	DC1.1	0,764	0,685	0,867	0,771
		DC1.2	0,841			
		DC1.3	0,874			
	<i>Data and Media Literacy (DC2)</i>	DC2.1	0,672	0,562	0,793	0,611
		DC2.2	0,762			
		DC2.3	0,809			
	<i>Digital Creation (DC3)</i>	DC3.1	0,912	0,833	0,973	0,900
		DC3.2	0,924			
		DC3.3	0,903			

Source: primary data processed, 2021

Examination of the feasibility of the model or Goodness of Fit is a test to determine the model's suitability with research data. The goodness of Fit in this study is an index and a measure of the goodness of the relationship between latent variables and their assumptions. Convergent Validity is a measurement carried out to determine how the size is positively correlated with alternative measures in the same construct. The first stage in evaluating the outer model can be started by looking at the results of the convergent validity test through the loading factor. Individual reflexive measures with the constructs measured can be high if they have a correlation of more than 0.70 or more than 0.4 and below 0.7 are still considered fulfilling as long as the research model is still in the development stage with a measurement scale. The number of indicators per variable is not significant, ranging from three to seven indicators (Hair *et al.*, 2019). Furthermore, Convergent Validity is also assessed through AVE (Average Variance Extracted), where if a model has an AVE value above 0.5, then the model is categorized as having high Convergent Validity. As for what is meant by Internal Consistency Reliability is an estimate of reliability that is based on the intercorrelation of an indicator variable being observed or studied. Internal consistency reliability is often also referred to as composite reliability. Meanwhile, Discriminant Validity is seen as the extent to which a construct can be completely different from other constructs of an existing empirical standard. The specific Composite Reliability value that can be accepted in exploratory research ranges from 0.60 to 0.70 (Hair *et al.*, 2019). At the same time, the construct is said to have high reliability if the value is 0.60, which is indicated by Cronbach's Alpha value.

Furthermore, the business sustainability variable uses a reflective first-order, which, based on the results of the first outer model, shows that the AVE value is 3.91, where the value is still below 0.5, which is the AVE requirement that can be accepted in a research model so that dropping or deletion of items is carried out. -item with the lowest value gradually until the AVE value is more than 0.5. The items removed from the model are BS2.1, BS2.2, BS2.4, BS3.3, and BS3.5. The total items from the business sustainability variable that meet the outer loading and AVE are six items, as shown in the following table.

Table 2
Digital Innovation Outer Model

Variable	Indicator	Item	Convergent Validity		Reliability	
			Loading First Order	AVE	Composite Reliability	Cronbach's Alpha
<i>Digital Innovation (DI)</i>	<i>Process Innovation (DI1)</i>	DI1.1	0,796	0,556	0,790	0,606
		DI1.2	0,750			
		DI1.3	0,688			
	<i>Organizational Innovation (DI2)</i>	DI2.1	0,873	0,750	0,900	0,834
		DI2.2	0,871			
		DI2.3	0,855			
	<i>Marketing Innovation (DI3)</i>	DI3.1	0,855	0,734	0,892	0,819
		DI3.2	0,853			
		DI3.3	0,862			

Source: primary data processed, 2021

Table 3
Business Sustainability Outer Model

Variable	Item	Convergent Validity		Reliability	
		Loading First Order	AVE	Loading First Order	AVE
<i>Business Sustainability (BS)</i>	BS1.1	0,758	0,511	0,862	0,810
	BS1.2	0,712			
	BS2.3	0,737			
	BS3.1	0,742			
	BS3.2	0,647			
	BS3.4	0,686			

Source: primary data processed, 2021

Table 4
Reliability and Validity Construct

Variable	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Digital Capability (DC)	0.889	0.904	0.912	0.541
Digital Innovation (DI)	0.883	0.890	0.907	0.522
Business Sustainability (BS)	0.810	0.818	0.862	0.511

Source: primary data processed, 2021

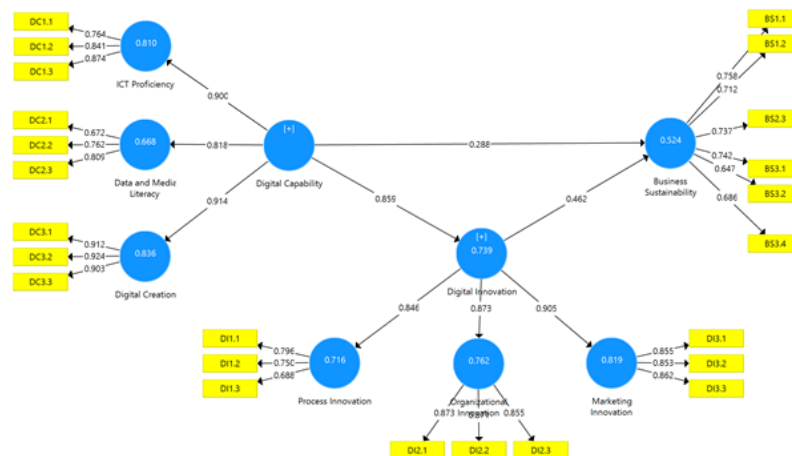
Based on Table 4 above, it can be seen that all variables in this research model have internal consistency reliability. All variables have Cronbach's Alpha, rho_A, and Composite Reliability values above 0.70. Thus, all constructs have been said to have met the Validity and reliability. Likewise, when viewed from the AVE value of each variable, it is concluded that the AVE value is above 0.5. These results indicate that this research data has met the requirements of both Convergent Validity.

Table 5
Endogenous Variable R Square Value

Variable	R Square	R Square Adjusted
Digital Innovation	0.739	0.737
Business Sustainability	0.524	0.518

Source: primary data processed, 2021

Furthermore, the R-square value of Digital Innovation shows that 73.9% of the Digital Innovation (DI) variable is influenced by the Digital Capability (DC) variable, while other variables outside the study influence the remaining 26.1%. While the R-square value of Business Sustainability is 52.4%, which means that the Business Sustainability (BS) variable is influenced by Digital Capability (DC) and Digital Innovation (DI) by 52.4%, while the variable others influence the remaining 47.6% outside of research.



Picture 2
Outer Model

Structural model testing (Inner Model) aims to measure the relationship between variables. Several measures can be used in SmartPLS 3.0 to test the structural model. This test was conducted to determine the predictive power of the structural model.

Table 6
Path Coefficient

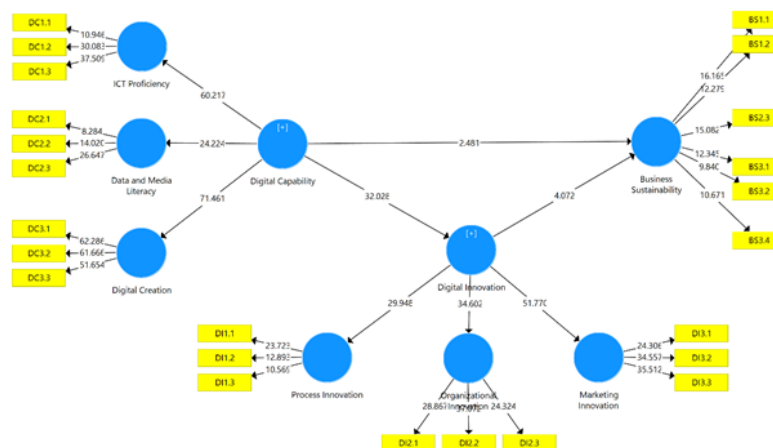
Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Digital Capability -> Digital Innovation	0.859	0.858	0.027	32.028	0.000
Digital Capability -> Business Sustainability	0.288	0.289	0.116	2.481	0.013
Digital Innovation -> Business Sustainability	0.462	0.466	0.113	4.072	0.000
Digital Capability -> Digital Innovation -> Business Sustainability	0.397	0.399	0.096	4.122	0.000

Source: primary data processed, 2021

The table above shows that:

1. The effect of Digital Capability on Digital Innovation with a coefficient of 0.859 and a P-Value of 0.000 with a t-statistic of 32.028 shows that the t-count is much greater than the t-table (1.960) then the effect is said to be

- significant. A positive coefficient indicates that the better the value of Digital Capability, the more it will encourage and encourage Digital Innovation by small business owners.
2. The effect of Digital Capability on Business Sustainability with a coefficient of 0.288 and a P-Value of 0.013 with a t-statistic of 2.481 indicates that the t-count is greater than the t-table (1.960), then the effect is said to be significant. A positive coefficient indicates that the better the value of Digital Capability, the Business Sustainability of small business owners will increase.
 3. The effect of Digital Innovation on Business Sustainability with a coefficient of 0.462 and a P-Value of 0.000 with a t-statistic of 4.072 indicates that the t-count is greater than the t-table (1.960). The effect is said to be significant. A positive coefficient indicates that the better the small business owner's ability to create Digital Innovation, the Business Sustainability of small business owners will increase.
 4. The indirect effect of Digital Capability on Business Sustainability through Digital Innovation with a coefficient of 0.397 and a P-Value of 0.000 with a t-statistic of 4.122 indicates that the t-count is greater than the t-table (1.960). The effect is said to be significant. A positive coefficient indicates that the better the Digital Capability value, the better Business Sustainability if stronger Digital Innovation supports it. It means that the Digital Capability owned by small business owners has a more significant influence on Business Sustainability while strengthening Digital Innovation.



Picture 3
Inner Model

Digital Capability has a direct and significant positive effect on Digital Innovation

Digital Capability has a significant positive effect on Digital Innovation with a correlation coefficient of 0.859 or 85.9%. When the Digital Capability variable is increased by one time, the Digital Innovation variable will also increase by 85.9%. These findings indicate that the owners or managers of Small Businesses in Surabaya can create digital innovations when they have good Digital Capability. These results support the findings of Zawislak *et al.* (2013) and Zhou & Wu (2010). Although it does not explicitly examine the relationship between digital capability and digital innovation, the influence of digital capability in creating innovation shows that digital capability is a crucial factor in producing digital innovation. The better the digital technology of small business owners (or, in this case, is part of digital capability), the better the digital products and services produced. It means that digital capabilities significantly affect the creation of digital innovation for a business. A critical element of digital capability is proficiency in using information technology, where technology and innovation are currently inseparable (Lu and Ramamurthy, 2011). The results of previous research conducted by Khin and Ho (2019) and reinforced by the opinion of Kerti Yasa *et al.* (2019) confirm that if a company can improve its digital capabilities in managing its digital technology, it has a higher probability of developing innovative digital solutions that will later improve the company's business performance. This finding is also following the concept of the technology acceptance model (Davis and Venkatesh, 1996), which shows that a person's tendency to use technology will have an impact on change, namely decisions and actions to use technology; in this case, the act of using digital capabilities in creating innovations: processes, organizations, and digital-based marketing. This finding is also in line with the theory of technology diffusion (Rogers, 1995), which suggests that knowledge about the importance of technology (digital) and innovation will encourage someone to produce something new.

Digital Capability has a direct and significant positive effect on Business Sustainability

Digital Capability has a direct and significant positive effect on Business Sustainability, with a correlation coefficient of 0.288 or 28.8%. When the Digital Capability variable is increased by one time, the Business

Sustainability variable will also increase by 28.8%. These findings indicate that the owners or managers of Small Businesses in Surabaya can sustainably sustain their business when they have strong digital capabilities, such as mastery of technology, literacy of data and information, and the ability to create digital innovations. This finding aligns with Ullah et al. (2021) study, which showed that IT Capability has a significant effect on business sustainability. Previously, Baker (2015) also revealed that digital technology for a business organization is an essential factor for the formation of digital capabilities, such as skills, expertise, and organizational ability to manage digital technology so that it can produce a product and or service development as well as ways of working. It means that increasing digital capabilities will affect the innovation that can be produced by an organization so that it has an impact on business sustainability.

Digital Innovation has a direct and significant positive effect on Business Sustainability

Digital Innovation has a direct and significant positive effect on Business Sustainability, with a correlation coefficient of 0.462 or 46.2%. When the Digital Innovation variable is increased by one time, the Business Sustainability variable will also increase by 46.2%. It means that digital innovations carried out by small business owners are proven to improve business performance and business growth and provide opportunities for small businesses to survive during times of crisis, such as Covid-19. Small business owners have good business continuity if their business has created innovations from business processes, organization, and marketing that are designed and implemented digitally. These results are also in line with the Resource-Based View (RBV) theory which reveals that the application of sound technology will produce innovations that encourage the creation of competitive advantages for companies (Khin and Ho, 2019)

Digital Capability has a positive and significant impact on Business Sustainability through Digital Innovation

Digital Capability has a positive and significant effect on Business Sustainability through Digital Innovation, with a correlation coefficient of 0.397 or 39.7%. When the Digital Capability variable is increased by one time, the Business Sustainability variable will also increase by 39.7% through Digital Innovations. If this study indicates that good knowledge of Digital Capability, accompanied by the implementation of digital transformation, it will bring its benefits to their business. It means that Digital Capability owners or managers of Small Businesses in Surabaya have a more significant influence on Business Sustainability through strengthening Digital Innovation. These results are in line with research conducted by Valmohammadi (2017), Choi *et al.* (2013), and Ussahawanitchakit (2012), who tried to find the positive impact of innovation as well as business performance and sustainability. The findings of this study also follow the RBV theory's assumptions, namely the company's resources, both tangible and intangible, and human resources; the combination of these resources will allow a business to have an advantage (Peteraf, 1993).

Conclusion

This study concludes that Digital Capability is proven to have a positive and significant influence on creating digital-based business innovations, such as innovations in business processes, innovations in organizational management, and innovations in marketing. Digital Capability has also been proven to have a positive and significant influence on the Business Continuity of small business owners, especially during the Covid 19 pandemic, where all business owners are required to have digital capabilities. Furthermore, Digital Innovation has been proven to affect the sustainability of small business owners, both from financial and non-financial aspects such as quality and flexibility. Finally, Digital Innovation is proven to mediate and strengthen the influence of digital capability on digital innovation for small business owners. Some recommendations from the results of this study are: for small business owners, the Covid-19 pandemic conditions force them to accelerate the ability of small business owners to survive or even take advantage of digital opportunities, namely by increasing digital capability, which will have an impact on the ability to innovate digitally. Moreover, in turn, it will improve business continuity. For the government, the economic stimulus policy for businesses needs to optimize the scope of its targets, especially for business owners, to accelerate the revival of business activities in the small business sector.

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