



# The Influence of Locus of Control and Need for Achievement on Digital Business Transformation and Mediation of Digital Literacy (Survey on Micro and Small Business in East Java)

Anggito Abimanyu<sup>1</sup>, Kusdi Raharjo<sup>2</sup>(✉), and Tri Wulida Afrianty<sup>2</sup>

<sup>1</sup> Master of Business Administration Program, Brawijaya University, Malang, Indonesia

<sup>2</sup> Department of Business Administration, Brawijaya University, Malang, Indonesia

kusdi@ub.ac.id

**Abstract.** Micro and small business actors in Indonesia have an important role in economic growth in Indonesia. So that these business actors need to be developed for their business because they see their contribution to the country of Indonesia is very large. Therefore, this study uses LOC and NFA variables to analyze the factors of individuals in digital transformation which are useful for surviving in the Covid-19 pandemic situation and the era of technological diffusion. On the other hand, it is also supported by the level of digital literacy which is the knowledge that individuals have to understand and understand in utilizing digital technology. This is expected to be able to accelerate the process of digital business transformation at MSEs in East Java. This research is a quantitative study using path analysis to examine the relationship between variables using SmartPLS 3.0 to analyze the data. This study found a direct effect of Locus of control and need for achievement on digital literacy, a direct effect of digital literacy on digital business transformation. And an indirect effect of locus of control and need for achievement to digital business transformation with digital literacy as a moderation variable.

**Keywords:** Locus of Control · Need for Achievement · Digital Literacy · Digital Business Transformation

## 1 Introduction

At this time in Indonesia has entered a disruptive era, this provides opportunities as well as challenges for business actors, especially micro and small business actors where they are still in the business development stage. Digital Business Transformation disrupts businesses in every industry by breaking down barriers between people, businesses and things [1]. The capabilities possessed by micro and small business actors must be good, such as how they know, understand, apply and follow the latest technological developments and knowledge. This is a benchmark for how the business they run is managed properly and correctly, if the business actors have done it well and correctly then they

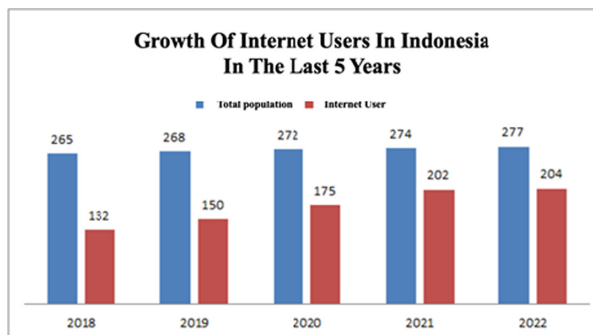
will not be eroded by the changes that are happening at this time. The era of disruption is a change in the environment usually marked by the presence of new innovations, technology, digital platforms, and renewable business models. Digital disruption occurs when new digital-based business actors introduce new service and product innovations based on digital technology so that they can threaten traditional services and products [2]. Therefore, business actors, especially micro and small businesses, must take advantage of these opportunities and be careful in choosing their business strategies to face challenges with the aim that the businesses they run do not go out of business or go bankrupt. Whereas entrepreneurship is an important barometer of the economy and is able to create prosperity by creating new jobs in every segment of society [3].

There have been many digital companies that have successfully developed in other parts of the world, including in Indonesia [4]. This digital development was started by young people who founded startup companies through digital entrepreneurship strategies [5]. Just like in Indonesia, many young people and even children want to become a YouTuber and become a successful entrepreneur in the digital sector. So that there are many online platforms that are commonly used to trade with other people in various regions in Indonesia. This indicates that by utilizing the digital platform, micro and small businesses can transform digitally quickly.

According to a survey conducted by Hootsuite in 2022 regarding the Indonesia Digital Report, it can be seen that the development of internet use in Indonesia is presented in Fig. 1.

It can be seen in the Fig. 1 that from 2018 to 2022 there was an increase with a comparison of the population in 2022 which amounted to 277 and a total of 204 internet users. This indicates that the people in Indonesia have adopted technological developments and of course this can be used as an opportunity for business actors to develop their business.

Furthermore, a survey conducted by Hootsuite describes the reasons why internet users in Indonesia actively use it (Fig. 2). As many as 80.1% of people in Indonesia use the internet to find information and knowledge on the Internet. This has indicated that people in Indonesia tend to use the internet to search for information and this is certainly good because people's interest in the information they want to get is relatively easy. Then 72.9% of people in Indonesia use the internet to look for new ideas and



**Fig. 1.** Internet user in Indonesia last 5 years.

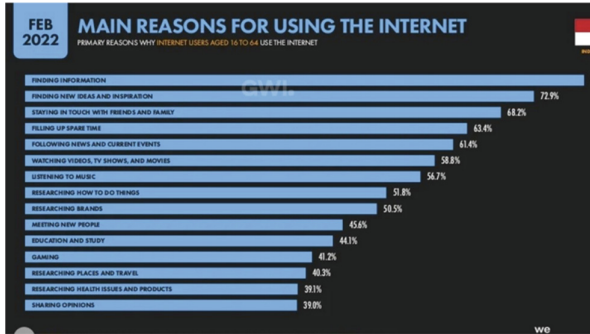


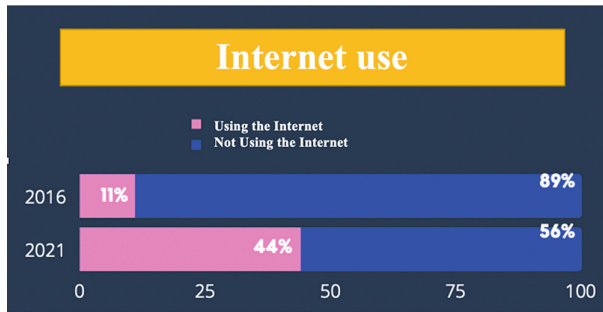
Fig. 2. Main reasons using internet.

information, and this indicates that people in Indonesia have started to know the internet and digital technology because they are able to use the internet to access knowledge and information with the aim of finding ideas. And inspiration etc.

The survey conducted by Hootsuite [*We Are Social*] includes providing evidence and facts that the majority of people in Indonesia can already use the internet. Of course, this must also be seen by business actors because it can be used as a digital business transformation.

The contribution of micro and small business actors in Indonesia is also quite large, as shown in the data presented by the Ministry of Cooperatives and Small and Medium Enterprises in March 2021 the number of MSMEs in Indonesia amounted to 64.2 million with a contribution to Gross Domestic Product [GDP] of 61.07 percent or Rp. 8,573.89 Trillion. This of course has provided evidence that MSME actors in Indonesia when facing the COVID-19 pandemic situation can survive even though some are temporarily closed as explained by the Asian Development Bank survey [2020] explaining that 49% of the MSME sector in Indonesia are temporarily closed. Due to the COVID-19 pandemic. However, after the COVID-19 pandemic, MSME actors were not only able to survive but were also able to develop as evidenced by the number of MSME actors in 2021 as many as 64.2 million and a contribution to GDP of 61.07%.

These two challenges force micro and small business actors to look for renewable business strategies. This also has an impact on the business strategies that they have implemented or have determined to be non-functional at this time. Research conducted by shows that there is a business strategy that is most relevant in dealing with these two challenges, namely digital business transformation [6]. This is also supported by research shows that technological disruption also has a positive impact on a company's business performance [7]. Therefore, this digital transformation is very beneficial for micro and small business actors if it can be used properly and correctly. Furthermore, according to a report from the East Java Province Cooperatives and SMEs Office, it shows that MSME actors in East Java have made business transformations, but not all actors. It can be seen in the picture below that the development of the business transformation of MSMEs in East Java has increased from 2016 with a percentage of 11% already using the internet and as many as 89% not using the internet and in 2021 it can be seen that 44% have used the internet and as many as 56% are still not. Use the internet. This shows



**Fig. 3.** Internet use on SMEs in Indonesia.

that micro and small business actors in East Java have carried out digital transformation but are not yet 100% complete. See Fig. 3.

There is a reason why not all micro and small business actors, especially in East Java, are not transforming effectively digital, namely because business actors are still unable to accept this renewable technology [8]. Actually, this digital transformation provides many advantages and advantages for micro and small business actors. On the other hand, Putri and Aristyanto [9] explaining the problem of society not being able to digitally transform because of the lack of quality human resources (HR), awareness of product quality, cleanliness and service is still lacking and the lack of digital literacy owned by business actors. This causes them to be unable to compete in the digital market.

Digital literacy itself is a tool to measure and assess how far business actors are in utilizing existing information technology. According to UNESCO defines digital literacy as the ability to use information and communication technology (ICT), to find, evaluate, utilize, create and communicate content/information, with both cognitive and technical skills. The purpose of digital literacy is to increase the ability to make adjustments in living, interacting and socializing in a digital society [10]. Digital literacy is an individual's ability to live, learn and work together in a digital society. Digital literacy for micro and small business actors is very important, this will be their provision in facing the 21st century, where in this century market developments will turn into digital massively. In addition, the digital literacy of micro and small business actors will increasingly enable the realization of the digital transformation of SMEs in general so that it has an impact on the stronger support of the national economy on a macro basis.

## 2 Methods

This research is a research with a quantitative method approach, with the type of research is Explanatory Research, namely research that explains the relationship between two variables, namely the independent and dependent variables with hypothesis testing that has been formulated. This study contains several variables that are tested and analyzed, including: Locus of Control, and Need for Achievement as an independent variable on Digital Literacy as a mediating variable and its impact on Digital Transformation as a dependent variable. Where this research will test and analyze the internal characteristics

of owners and small micro business actors on the success of digital transformation of micro and small businesses as formulated in the hypothesis of this research. The unit of analysis of this research is the organization, namely micro and small enterprises in East Java. In this case, the owners and small business actors who will be used as respondents represent the organization or business they run.

### 2.1 Data Source

In this study, data were obtained from scientific publication journals, books, and primary data obtained from distributing questionnaires to micro and small business actors.

### 2.2 Research Instrument

A measurement instrument was constructed and adopted from the literature that is currently available and addresses various features of the six parts in order to verify and validate the suggested model and test the study hypotheses. A Likert scale with five possible responses—from “strongly agree” to “strongly disagree”—was employed. There were 47 questions in the questionnaire for study participants.

### 2.3 Sample and Data Collection

In total, 293 respondents returned the 700 questionnaires that were sent to all micro and small business players in 38 districts and cities in East Java. Distribution of questionnaires both online and offline was used to collect data. With the aid of the SmartPLS program, partial least squares with variance-based SEM were used to analyze the data.

## 3 Findings

### 3.1 Descriptive Analysis

Table 1 presents demographic information about the participants. The majority of respondents were micro business owners, accounting for 78%, while small business owners made up 22% of the sample.

**Table 1.** Participant demography.

Measure	Items	Frequency	Percentage
Labor	1–4	229	78%
	5–19	64	22%

**Table 2.** Inner model testing.

Relationship between variables	Original sample [O]	P - Values
<i>Locus of Control</i> → <i>Digital Literacy</i>	0.244	0.000
<i>Need for Achievement</i> → <i>Digital Literacy</i>	0.313	0.000
<i>Locus of Control</i> → <i>Digital Business Transformation</i>	0.135	0.009
<i>Need for Achievement</i> → <i>Digital Business Transformation</i>	0.181	0.001
<i>Digital Literacy</i> → <i>Digital Transformation</i>	0.484	0.000
<i>Locus of Control</i> → <i>Digital Literacy</i> → <i>Digital Business Transformation</i>	0.118	0.001
<i>Need for Achievement</i> → <i>Digital Literacy</i> → <i>Digital Business Transformation</i>	0.152	0.000

### 3.2 Structural Model Assessment

The Structural Model testing seeks to quantify the link between variables. With Smart-PLS 3.0, various metrics can be utilized to evaluate the structural model. This testing is done to see how well the structural model predicts the future.

The Table 2 shows that:

**Hypothesis Test 1.** The influence of locus of control on digital literacy found to have a coefficient of 0.244 and P-Value < 0.0 5 which is 0, 000 then these two variables have a positive and significant relationship. The positive coefficient of 24.4% indicates that the better the locus of control value, the more digital literacy will increase by the related coefficient.

**Hypothesis Test 2.** The effect of need for achievement on digital literacy found to have a coefficient of 0.313 and P-Value < 0.0 5 ie 0.00 0 then these two variables have a positive and significant relationship. The positive coefficient of 31.3% indicates that the better the value of the need for achievement, the more digital literacy will increase by the related coefficient.

**Hypothesis Test 3.** The influence of locus of control on digital business transformation found to have a coefficient of 0.135 and a P-Value < 0.0 5 i.e. 0.00 9 then these two variables have a positive and significant relationship. The positive coefficient of 13.5% indicates that the better the locus of control value, the more easily digital transformation can be achieved.

**Hypothesis Test 4.** The effect of need for achievement on digital business transformation found to have a coefficient of 0.181 and a P-Value < 0.0 5 ie 0.00 1 then these two variables have a positive and significant relationship. The positive coefficient of 18.1% indicates that the higher the need for achievement, the higher the value of the need for achievement digital business transformation will be easier to achieve.

**Hypothesis Test 5.** The influence of digital literacy on digital business transformation found to have a coefficient of 0.484 and a P-Value < 0.0 5 which is 0, 000 then these two

variables have a positive and significant relationship. The positive coefficient of 48.4% indicates that the better the value of digital literacy so digital business transformation will increase by the corresponding coefficient.

**Hypothesis Test 6.** The influence of locus of control on digital business transformation with digital literacy as a moderating variable was found to have a coefficient of 0.118 and a P-Value < 0.05 which is 0.001 then these two variables have a significant positive relationship. The positive coefficient of 11.8% indicates that the better the locus of control value, the easier digital business transformation will be to achieve, equal to the related coefficient if mediated by digital literacy.

**Hypothesis Test 7.** The effect of need for achievement on digital business transformation with digital literacy as a moderating variable was found to have a coefficient of 0.152 and a P-Value < 0.05, which is 0.000, so these two variables have a significant positive relationship. The positive coefficient of 15.2% indicates that the better the need for achievement, the easier digital business transformation will be to achieve, equal to the related coefficient if mediated by digital literacy.

### 4 Discussion

See Fig. 4.

**Hypothesis 1.** There is a significant and positive influence between the influence of locus of control and digital literacy in increasing digital literacy for micro and small business actors in East Java, this indicates that the internal influence of business actors by controlling events in their lives will provide increased ability in digital literacy. This is reinforced by the theory developed by Rotter [11] which states that a person’s internal locus of control has the belief that he is able to control his own life, further according to Ayudiati [12] is a form of responsibility from within a person for what happens to

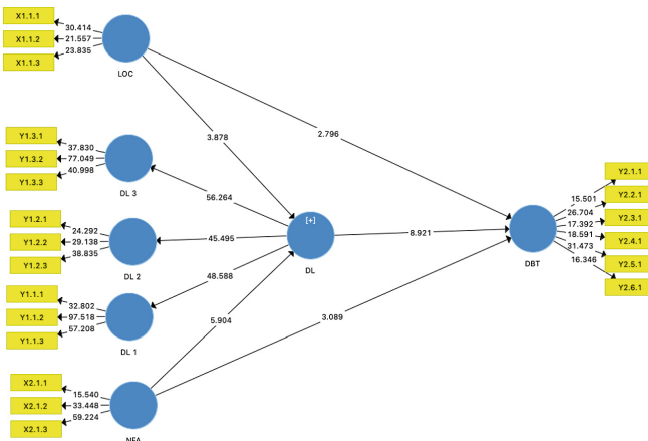


Fig. 4. Inner model.

him themselves. So that when someone who has a high sense of responsibility towards the business they run takes advantage of digitalization, they will not make mistakes in analyzing the sources of knowledge they get from social media or others and on the other hand it is done with a full sense of responsibility by not violating rules that have been made [13].

**Hypothesis 2.** There is a significant positive influence between the need for achievement on digital literacy in micro and small business actors in East Java, this indicates that the willingness of business actors to motivate them to get an award for the work they do so that digital literacy will also increase. This finding is also supported by McClelland [14] theory which develops 3 dimensions of motivation, namely: Need for achievement, Need for Power, and Need for Affiliation. However, in this study only the need for achievement is used to develop hypotheses, in this theory the motivation of a person is determined by the desire to achieve achievement. Therefore, when business actors want to achieve transformation, a driving factor is needed according to Unesco defining digital literacy as the ability to use information and communication technology (ICT), to find, evaluate, utilize, create and communicate content/information, with cognitive and technical skills. So when business actors have more motivation and are willing to learn, it is impossible to take advantage of digitalization with an understanding of digital literacy.

**Hypothesis 3.** There is a significant positive influence between the influence of locus of control on digital business transformation on micro and small business actors, this indicates that the ability to control events from within business actors is able to increase digital business transformation. From the theory developed by Rotter [11] which says that the internal locus of control is the belief that an individual has about the life they have they can control. From the theory developed by Rotter, it supports these findings where when a business actor wants to carry out digital transformation, they need to believe that when they have decided for digital transformation, it is entirely on their own will and control without any influence from outside or other people.

**Hypothesis 4.** There is a significant positive influence between the need for achievement on digital business transformation, this indicates when business actors have the will in themselves to get an award for what they have achieved, digital transformation will also be achieved quickly. This finding is reinforced by McClelland [14] theory where humans have 3 needs, one of which is the need for achievement, where an entrepreneur in doing business is driven by the need for achievement. Therefore, with the driving factor, namely the need for achievement, micro and small business actors in East Java can immediately transform digitally.

**Hypothesis 5.** There is a significant positive influence between digital literacy on digital business transformation, this indicates that when business actors understand digital literacy, it will help them in digital transformation properly and correctly. These results are in line with research conducted by Erlanitasari et al. [15] which examines the role of digital literacy in enhancing digital transformation. From the results of his research, with the Go-Online MSME program, it turns out that digital literacy is able to help accelerate business actors in digital transformation. On the other hand, these findings also support research conducted by Widiastuti et al. [16], the results of the research conducted show that digital literacy has a positive and significant influence on business performance,



when a company is able to achieve digital transformation, it is unlikely that their performance will also improve. Improving so that this becomes the goal of business people to carry out digital transformation [17].

**Hypothesis 6.** There is a significant positive influence between locus of control on digital business transformation mediated by digital literacy, this proves that when business actors are able to control the events that occur within them, they will accelerate to transform and be supported by digital literacy to understand the needs in the transformation. This is also reinforced by the theory developed by Rotter [11] which states that people who have an internal locus of control tend to believe that they are responsible for their own destiny and are happy to do work. This situation is where the expertise and effort put in will lead to success. On the other hand, digital literacy according to Potter [18] Media literacy is the ability to access, to understand and critically evaluate media content and different aspects of media, as well as to create communication in various contexts. Furthermore, according to Bonnet and Westerman [19], digital business transformation is the use of technology that radically improves the performance or achievement of company goals. Therefore, when business actors own and believe in their ability to develop business coupled with the ability of business actors to analyze knowledge information sources, digital transformation can be achieved with the hope of improving the performance of their business organizations.

**Hypothesis 7.** There is a significant positive influence between the need for achievement on digital business transformation mediated by digital literacy, this indicates that when business actors have high motivation for the awards they have achieved, they will accelerate digital transformation assisted by digital literacy on the understanding of business actors related to digitization. There is one need that can encourage a person's motivation, namely the need for achievement [14]. nAch or need for achievement is a factor that encourages business activities with the need for achievement, meaning the drive or willingness from within the individual to carry out tasks in accordance with predetermined standards. On the other hand, digital literacy according to Potter [18] Media literacy is the ability to access, to understand and critically evaluate media content and different aspects of media, as well as to create communication in various contexts. Furthermore, according to Bonnet and Westerman [19], digital business transformation is the use of technology that radically improves the performance or achievement of company goals. Therefore, it refers to the Pland Behavior Theory where one of the determinants of a person's willingness to become an entrepreneur is motivation. In this case the motivation in a person is the need for an achievement and this achievement is the success of digital transformation. On the other hand, to simplify and accelerate digital transformation, it requires the ability to analyze information and knowledge on social media so that they do not fall into the information they get and this is a function of Digital Literacy.

This indicates that the MSEs who can survive are business actors who have succeeded in digital transformation. On the other hand, the theory developed by Rotter states that internal locus of control is a person's ability to control or control their life, this also supports the findings in this study where locus of control has a significant influence in accelerating the process of digital transformation of actors. Business and micro. Internal

Locus of Control is to encourage the ability of business actors to find ways and control themselves in seeking transformation efforts. Furthermore, the findings related to Digital Literacy also have a significant influence on business transformation, which was developed by the Ministry of Communications of the Republic of Indonesia which aims to assist business actors in developing their business to become digital. These findings prove that Digital Literacy can encourage the digital transformation of micro and small companies in line with research conducted by Erlanitasari et al. [15] Then related to the mediation of Digital Literacy, the findings are proven when business actors have more motivation that comes from within themselves to encourage business transformation and is supported by the ability of business actors to understand digital literacy. This can support the acceleration of business actors in achieving digital transformation, especially in East Java.

## 5 Conclusion

This research uses a quantitative research type, with a non-probability sampling method, the technique used is quota sampling. Of the total population of 700 respondents, only 293 respondents were sampled in this study. Furthermore, the results of this study of all the hypotheses made all have a significant positive effect. So this can be a reference for the government to take steps in implementing the MSME development strategy, especially micro and small business actors in East Java. In addition, Locus of Control and Need for Achievement are factors that influence digital transformation from within micro and small business actors in East Java, then Digital Literacy is a driving factor for micro and small business actors in Indonesia, this is evidenced by research conducted On the other hand, this also encourages the willingness of business actors to transform digitally. Overall, the results of this research can encourage business actors to develop their business, and can accelerate digital business transformation.

**Acknowledgments.** Finally, I'd want to thank a few of my supervisors who have helped me learn a lot about running a small firm and managing human resources. For my thesis, this was a huge academic aid. I also want to acknowledge my thesis supervisor, who helped me a lot when I wrote my thesis for the first time by teaching me how to format it and making adjustments to some of the specifics. Several lecturers also assisted me in drafting my thesis. They assisted me in improving my thesis and lightening my load. Once more, many thanks.

## References

1. Schwertner, K.: Digital transformation of business. *Trakia Journal of Science* 15(Suppl.1), 388–93 (2017).
2. Alkhamery, N., Zainol, F. A., Al-Nashmi, M.: The role of dynamic capabilities in reconfiguring operational capabilities for digital business transformation. *The Journal of Management Theory and Practice (JMTP)*, 1–8 (2021).
3. Toma, S. G., Grigore, A. M., Marinescu, P.: Economic development and entrepreneurship. *Procedia economics and finance* 8, 436–443 (2014).

4. Tayibnapis, A. Z., Wuryaningsih, L. E., Gora, R.: The development of digital economy in Indonesia. *IJMBS International Journal of Management and Business Studies* 8(3), 14-18 (2018).
5. Reis, J., Amorim, M., Melão, N., Matos, P.: Digital transformation: a literature review and guidelines for future research. *Trends and Advances in Information Systems and Technologies* 1(6), 411-421 (2018).
6. Mas'udi, W., Winanti, P. S.: *New normal: perubahan sosial ekonomi dan politik akibat COVID-19*. Gadjah Mada University Press, Yogyakarta (2020).
7. Singh, D. S. M., Hanafi, N. B.: Disruptive technology and SMEs performance in Malaysia. *International journal of academic research in Business and social sciences* 9(12), 140-148 (2019).
8. Scherer, R., Siddiq, F., Tondeur, J.: The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education* 128, 13-35 (2019).
9. Putra, A. P., Aristyanto, E.: *Pemberdayaan Masyarakat Umkm Berbasis Digital Literacy Di Kampung Logam Ngingas Kabupaten Sidoarjo [Empowerment of Sme Community Based On Digital Literacy in Kampung Metal Ngingas, Sidoarjo Regency]*. *Jurnal Sinergitas PKM & CSR* 5(3), 538-550 (2021).
10. Shen, Q., Hua, Y., Huang, Y., Ebstein, R., Yu, X., Wu, Z.: Knowledge management and modern digital transformation of the property management industry in China. *Journal of Knowledge Management* 26(8), 2133-2144 (2022).
11. Rotter, J. B.: Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of consulting and clinical psychology* 43(1), 56 (1975).
12. Ayudiati, S.E.: *Analisis Pengaruh Locus Of Control Terhadap Kinerja Dengan Etika Kerja Islam Sebagai Variabel Moderating*. (2010).
13. Bijker, W. E., Hughes, T. P., Pinch, T.: *New Directions in the Sociology and History of Technology* (1987).
14. McClelland, D. C.: *Achieving society* (Vol. 92051). Simon and Schuster (1961).
15. Erlanitasari, Y., Rahmanto, A., Wijaya, M.: Digital economic literacy micro, small and medium enterprises (SMES) go online. *Informasi* 49(2), 145-56 (2020).
16. Widiastuti, E., Kurniasih, R., Martini, S.: Can Digital Literacy Increase SMEs Performance? An Evidence from SMEs in Banyumas. *Sustainable Competitive Advantage (SCA)* 11(1), (2021).
17. Libert, B., Beck, M., Wind, Y.: Questions to ask before your next digital transformation. *Harv. Bus. Rev* 60(12), 11-13 (2016).
18. Potter, W. J.: The state of media literacy. *Journal of broadcasting & electronic media* 54(4), 675-696 (2010).
19. Bonnet, D., Westerman, G.: The new elements of digital transformation. *MIT Sloan Management Review*, 62(2), (2020).

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

