Performance Recovery Of Creative Sector Industries: Strengthening Management Literacy And Digital Business Innovation

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Wahyudiono et al. Journal of Innovation and Entrepreneurship (2024) 13:21 Journal of Innovation and https://doi.org/10.1186/s13731-024-00376-6 Entrepreneurship RESEARCH Open Access Performance recovery of creative sector industries: strengthening management literacy and digital business innovation Wahyudiono1, Yustinus Budi Hermanto2* , Soffia Pudji Estiasih3 and Aminatuzzuhro4 *Correspondence: yustinus.budi@ukdc.ac.id 1 Management Study Program, Wijaya Kusuma University Surabaya, Jl. Dukuh Kupang XXV No. 54, Surabaya, East Java 60225, Indonesia 2 Management Study Program, Darma Cendika Catholic University Surabaya, Jl. Dr. Ir. H. Soekarno No. 201, Surabaya, East Java 60117, Indonesia 3 Management Study Program, PGRI Adhi Buana University Surabaya, Jl. Hamlet Mendgal XII, Surabaya, East Java 60234, Indonesia 4 Management Study Program, Wijaya Putra University Surabaya, Jl. Raya Benowo No. 1-3, Surabaya, East Java 60197, Indonesia Abstract This study examined the effect of strengthening management literacy on digital busi- ness innovation and accelerating performance recovery and examined the impact of digital business innovation on accelerating performance recovery. This study is explanative/associative research accompanied by hypothesis testing. The unit of analysis in this study was creative industry entrepreneurs, with a total popula- tion of 354. Sampling in this study used purposive sampling with specific criteria and obtained 194 as a sample size, after which they were referred to as respondents. Path analysis results show that strengthening management literacy directly and sig- nificantly influences digital business innovation and accelerates performance recov- ery; digital business innovation directly and substantially influences the acceleration of performance recovery in the creative industry sector. The findings of this study indicate that strengthening management literacy, which is carried out in a structured and massive manner, will encourage innovative behavior in implementing digital busi- ness. Digital business innovation will spur business activities to become more effective, because they are not limited by space and time. Keywords: Literacy, Management, Business, Digital, Performance Introduction The business environment is one factor that can influence a business's success or fail- ure; therefore, any change can disrupt its performance (Battistella et al., 2020; Cantonnet et al., 2019). Performance is a result of implementing the management process carried out by all organizational units using its resources for a specific time. (Sawaean & Ali, 2020). Meanwhile, performance measurement can be formulated according to each organizational unit's targets. Performance measurements should be assessed based on indicators relevant to the prevailing environmental conditions to ensure prompt and suitable implementation of performance recovery strategies (Trianni et al., 2019). The revenue of the creative industry sector witnessed a decline in 2020 compared to the rev- enue generated in 2019. However, it rebounded in 2021 and continued to grow until the first half of 2022. Nevertheless, the growth could not surpass the revenue achieved in 2019 due to management's failure to adapt to changes that took place quickly and to find a quick and precise solution (Cantonnet et al., 2019). Changes can occur unexpectedly (Choi et al., 2019), and management should have a strong sensitivity to adapt to changes through creative and innovative behavior in utilizing digital technology platforms (Domi et al., 2019). Environmental changes can affect the management process in managing their business, along with the time process and business learning will undoubtedly affect how to adapt to change (Chang & Cheng, 2019), so that the acceleration of performance recovery will go hand in hand with the policy directions made by management (Fitri- ati et al., 2020). The availability of technology platforms and social media that can be accessed openly by the public also influences people's behavior in utilizing the value of information. This information is used to strengthen management literacy and encourage digital business innovation (Okundaye et al., 2019) to improve management and busi- ness services which are fast, easy, and flexible according to the needs of the community without being limited by the dimensions of time and place (Hassan & Raziq, 2019). The revenue generated by the creative industry sector from 2020 to 2022 has not been able to reach the revenue generated in 2019. This pressing issue requires rapid resolution to restore revenue performance to at least the same level as in 2019. Figure 1 displays the revenue the creative industries sector generated from 2019 to 2022. Figure 1 depicts the financial gains of the creative industry sector, as derived from a sample dataset of 194 enterprises located in four locations in East Java, namely, Sura- baya, Mojokerto, Pasuruan, and Gresik. In 2020, the average income of the creative industry sector was IDR 7.40 billion per city per year, comparable to a 33.52% decline compared to the average income of IDR 22.01 billion in 2019 (a decrease of 66.48%). In 2021, the average revenue per city per year rose to IDR 13.59 billion, representing a 61.74% rise compared to the average revenue in 2019 of IDR 22.02 billion, representing a decline of 38.26%. In 2022, amidst the new normal, the average income per city per year rose to IDR 20.58 billion, marking a 93.49% gain compared to the average income of IDR 22.01 billion in 2019, which had a fall of 6.51%. The revenue generated by the creative industry from 2020 to 2022 has not yet exceeded the income recorded in 2019, despite 30.00 25.00 24.30 22.94 21.06 22.14 20.52 21.13 22.01 20.58 20.00 19.33 18.91 15.00 13.99 12.46 12.57 13.59 15.34 10.00 8.90 6.24 7.10 7.34 7.40 5.00 - Surabaya Mojokerto Pasuruan Gresik Average 2020 2021 2022 2019 Fig. 1 Creative industry business income (billion Rupiah). Source: Creative industry business income based on sample data 3 years of operation. Similarly, the revenue generated by the creative industry sector, as indicated by the sample data from 2020 to 2022, remains lower than the revenue gener- ated in 2019. This shows a significant impediment to revenue growth during the past 3 years, necessitating prompt action to restore optimal performance. Based on empirical evidence, the performance recovery of the creative industry sector can be attributed to two essential factors: enhancing management literacy and fostering digital business innovation. These factors are crucial in effectively using digital technol- ogy platforms and social media to support a creative culture and manage business oper- ations. This phenomenon indicates that strengthening management literacy and digital business innovation, which is carried out systematically and structured, is expected to accelerate the recovery of organizational unit performance. Strengthening management literacy and digital business innovation oriented towards improving management and business management can accelerate the recovery of the performance of the creative industry sector for the better (Okundaye et al., 2019). The results of research related to the performance of the small-micro and the creative industry sector by several research- ers showed different results from one another; this was due to the use of different con- cepts in explaining this performance (Falahat et al., 2020; Lin & Ho, 2019; Okundaye et al., 2019; Verdolini et al., 2018). Management literacy refers to individuals' acquisition of management knowledge through digital platforms and social media. This enables business actors to periodically enhance their

understanding of management concepts, improving their business man- agement practices (Okundaye et al., 2019). Enhancing management literacy involves individuals' or business entities' deliberate and enduring efforts to augment their under- standing and grasp of contemporary management principles. This is achieved through proactive engagement in activities aimed at acquiring new knowledge, using social media platforms, fostering open communication channels, embracing digital platforms, and making informed decisions guided by digital and social media sources (Sawaean & Ali, 2020). Engaging in dynamic activities on digital platforms that focus on acquiring new management information will undoubtedly enhance the managerial skills of indi- viduals or corporate entities, leading to improved performance outcomes. Business learning over a specific time has encouraged business actors to improve their management skills independently through active literacy. They utilized social media and other digital platforms that can be accessed openly (Nofiarli, 2018; Rauch et al., 2017). Strengthening management literacy has changed their perspective that digital-based business is the right solution to eliminate the isolation of business deadlocks (Lin & Ho, 2019). The year 2022 is the beginning of the rise of the creative industry sector, start- ing with organizing and improving its business management with accurate literacy guid- ance, so that its business management can adapt to the new era. In the new normal life, businesses are starting to grow, although slowly, their perfor- mance growth is improving compared to 2020. However, they did not match their per- formance in 2019 (Sawaean & Ali, 2020). Strengthening management literacy is expected to be able to open barriers that have closed steps and business spaces that have been deadlocked since the COVID-19 pandemic occurred (Hassan & Raziq, 2019). Access to extensive information also accelerates the community's ability to be literate in various areas, including management, financial, and digital literacy. So that management and business processes grow massively and the quality of business services and products becomes fast, effective, and efficient (Choi et al., 2019). The era of digital business is a necessity where a business person must be open-minded and willing to accept the fact that business has experienced changes in space and dimen- sions; new instruments demand services that are fast, easy, and flexible according to the wishes of the community (Foghani et al., 2017). The digital business provides a vast open space for business people to imagine and innovate about services and products, so that quality is the keyword for businesses to create added value, satisfaction, and loyalty for their consumers (Falahat et al., 2020; Verdolini et al., 2018). The COVID-19 pandemic has changed the gloomy face of the creative industry business in East Java. Still, on the other hand, it has also provided positive reinforcement in accelerating changes in behav- ior and people's perspectives on business (Lucky et al., 2019). Entering a digital business requires adequate psychological readiness, especially for business people still stutter- ing with information technology and still remembered by the community (Sawaean & Ali, 2020). Digital business innovation provides an opportunity to optimize the role of information technology in enhancing the ability to build a creative and innovative cul- ture for all of its business processes to guarantee the quality of services and products to create advantages that can be gifted to its consumers, beyond what is provided by its competitors (Hassan & Raziq, 2019). Strengthening management literacy and digi- tal business innovation is a relevant phenomenon to explain how management literacy can encourage digital businesses to be wider open and to innovate in a structured man- ner to accelerate the recovery of better business performance (Wahyuni & Sara, 2020). Strengthening management literacy is expected to be able to increase the owner's ability to manage digital-based businesses through the development of a creative and innova- tive culture in creating added value service and product quality amid efforts to acceler- ate the recovery of the performance of the creative industry sector for the better when entering the new normal life era in business. The purpose of this study is to empirically prove the effect of: (1) strengthening management literacy on digital business innova- tion, (2) strengthening management literacy on accelerating performance recovery, and (3) digital business innovation on accelerating performance recovery. Therefore, this research is expected to be able to explain that strengthening management literacy and digital business innovation, to create space for creativity in managing business for busi- ness actors in the creative industry sector and is able to improve the quality of services and better products. To accelerate the recovery of the performance of the creative indus- try sector, the business owners should be more progressive. Literature studies Strengthening literacy management Strengthening literacy management is a structured and actual effort to increase knowl- edge through access to technology platforms, information, social media, and other vir- tual media (Klimczak et al., 2017). So that there is an accumulation of practical, technical, and conceptual skills to manage the business better (Ahmadi & Mohd. Osman, 2018). Literacy strengthening can be carried out by a person or business person who wants to overcome challenges that may occur or hinder the desired goals by opening consult- ing rooms and seeking the latest information through mainstream and non-mainstream media, thus providing additional managerial knowledge and skills (Hassan & Raziq, 2019). Environmental changes often make business conditions uncertain. This is because the management is no longer attuned to the new situation; therefore, an accurate and responsive effort is needed to mark changes that can enhance new knowledge (Falahat et al., 2020). Therefore, strengthening literacy can increase management's responsive- ness to new environments (Djou & Lukiastuti, 2021). Responsiveness in interpreting digital media and actively using it, as well as a solid commitment to the role of digital media, is a real effort to realize more robust literacy management, resulting in the trans- formation of management's valuable knowledge for managing digital business to become innovative. (Falahat et al., 2020; Hervas-Oliver et al., 2020). Strengthening literacy management needs to change a person's or business's attitude and behavior in responding to developments in the digitalization era (Rauch et al., 2017; Sitepu, 2019). People and business activities will be determined by their ability to uti- lize information technology to support lifestyle fulfillment or manage a business (Tseng et al., 2017). Several business actors often come into contact with information-gather- ing activities, open discussion spaces, and commitment to digital media. Readiness to accept change is an attitude and behavior that can improve management literacy skills and encourage the creation of cultural innovations in managing digital-based busi- nesses (Fitriati et al., 2020). Strengthening literacy management must be carried out in a structured and sustainable manner, so that the knowledge transfer process can meet the needs and management can adapt to the new environment (Tseng et al., 2017). Cre- ative and innovative behavior can improve the community's service quality, making it easier, faster, and more flexible. In turn, it can accelerate the recovery of better perfor- mance (Vásquez et al., 2019). Several indicators used to explain the variable concept of strengthening management literacy have been revealed in research conducted by several researchers (Falahat et al., 2020; Fitriati et al., 2020; Hassan & Raziq, 2019; Hervas-Oliver et al., 2020). These indicators include searching for new information, being active with digital media, opening up space for discussion, committing to change, optimizing the role of digital media, and being fast in decision-making. Those studies also reveal that management literacy, which is carried out systematically and continuously, can encour- age the implementation of innovative digital business to improve service quality for the better, so that it can accelerate performance recovery, even though there are some dif- ferences in measuring the indicators. Based on those empirical studies, the following hypothesis can be put forward: H1 Strengthening literacy management affects digital business innovation in the crea- tive industry sector significantly. H2 Strengthening management literacy has a significant effect on accelerating the recovery of the performance of the creative industry sector. Digital business innovation Digital business innovation is a planned and conscious activity to carry out actions that can increase added value in managing a digital-based business, so that the business it manages can always create change (Lucky et al., 2019). Digital business is developed by utilizing digital technology platforms, web applications, or other virtual media that can be selected according to business needs (Mulolli et al., 2017). Digital business has a very open, transparent, easy, fast, and flexible space, because digital platforms can frame public spaces that are not limited by space and time (Okundaye et al., 2019). Individu- als or corporations often innovate by utilizing technology issues, management devel- opment, and technology-based processes. Technology-based innovation can produce higher quality products, lower costs, faster processes, and results with a better set of value added to leverage organizational performance for the better (Prashar, 2019). An attitude of caring about digital issues, exploring digital-based ideas, and providing funds for technology development are behaviors that can support the creation of a creative culture within a community or organization to generate big ideas to develop effective and efficient business processes (Falahat et al., 2020; Hassan & Raziq, 2019). Creative culture and innovative behavior are forms of civilizational investment in an organization (Mohamad Radzi et al., 2017). These characteristics can become strategic resources to build competitive advantage for corporates; therefore, these cultural val- ues must be maintained and developed

continuously to create a sustainable competitive advantage (SCA) for the organization (Dolz et al., 2019). Businesses in the digital era always demand innovative services and products for their users (Dunets et al., 2018). The sophistication of social media can provide information, friendship communities, and communication through virtual networks and content that can be accessed flexi- bly, quickly, easily, and cheaply without being separated by space and time dimensions (Goerzig & Bauernhansl, 2018; Sanchez Badini et al., 2018). Changes in people's lifestyles also accelerate the process of cultural transformation, which demands practical and fast services as displayed through virtual information and content on social media (Henr- iques & Catarino, 2016). The application of digital business must be supported by the ability of a person or corporation to always behave creatively and innovatively in meet- ing the expectations, desires, and needs of their consumers (Krishnan & Scullion, 2017; Verdolini et al., 2018). Several indicators used to explain the variable concept of digital business innovation have been disclosed in studies conducted by some authors (Dunets et al., 2018; Mohamad Radzi et al., 2017; Okundaye et al., 2019; Prashar, 2019) which include being responsive to digital issues, utilizing digital market issues, developing digi- tal management, digital-based business processes, developing digital ideas and allocat- ing digital development funds. This research also reveals that innovation during massive digital business management can drive business processes to improve the quality of ser- vices and products for consumers, so that the added value created can accelerate the recovery of better performance even though there are changes in the use of indicators. Based on those empirical studies, the hypothesis can be put forward as follows: H3 Digital business innovation has a significant effect on accelerating the recovery of the creative industry sector's performance. Performance recovery acceleration Accelerating performance recovery is a strategic and measurable step to optimize own- ership of economic resources and manage them through the utilization of conceptual resources (Ndiaye et al., 2018). This strategy must be carried out to accelerate the recovery of organizational performance faster after experiencing a decline in performance during extreme changes in the business environment (Linder, 2019). Several phases of action must be carried out through a comprehensive evaluation of why performance is declining, how to map environmental problems that occur, how to design practical strategic actions, how to implement them measurably and carry out ongoing monitoring and evaluation (Janas- ová et al., 2017). Recovery of organizational performance must be carried out through an acceleration strategy by implementing a measurable system (Prima & Ute, 2018), because the downturn that occurred was very extreme, and business activities that disrupted perfor- mance had to be restored immediately to conditions before the pandemic hurricane (Felício et al., 2019). Deterioration in performance causes the organization's service cycle to become hampered (Staniec et al., 2017), where gains in revenue, profit, and acquisition of sales orders must accelerate the cycle, so that services to consumers typically run again (Canton- net et al., 2019; Sawaean & Ali, 2020). Being active in the use of digital media and trying to maximize the role of digital will undoubtedly open up a more expansive space for access to information (Goerzig & Bauernhansl, 2018), so that management literacy becomes better, where literacy regularity contributes to management development and influences perfor- mance recovery better (Choi et al., 2019; Wahyuni & Sara, 2020). Creative culture and innovative behavior accelerate service cycle improvements in business activities (Klimczak et al., 2017), so that access to economic resources becomes wider, business management becomes more effective, and business process costs become more efficient. Digital business needs innovation support in all aspects of organizational functions (Yoshino & Taghizadeh-Hesary, 2019), so that business processes can produce superior value that exceeds what is offered by its competitors, so that performance results become better and can recover quickly like performance achievements before the crisis occurred (Falahat et al., 2020; Trianni et al., 2019). Several indicators used to explain the variable concept of accelerating performance recovery have been disclosed in the research results (Choi et al., 2019; Sawaean & Ali, 2020; Trianni et al., 2019; Wahyuni & Sara, 2020), which includes spurring revenue, spurring profits, spurring the acquisition of sales orders, spurring business services, spurring access to resources, spurring business effectiveness and cost efficiency. This study also illustrates that the acceleration of performance recovery will be realized well when a person or corporation has a strong commitment to building man- agement literacy on a massive scale and can build a creative culture and innovative behavior in managing a business that consists of all aspects of its activities, to improve quality ser- vices and products to consumers are getting better even though there are differences in the use of indicators. Research model The framework conceptual of this study is depicted in Fig. 2. Strengthening management literacy is the independent variable (SML); digital business innovation is the intervening variable (DBI); and Accelerated performance recovery is the dependent variable (APR). Methodology Population and sample The population in this study are creative industry business actors domiciled in East Java creative industry centers (Surabaya, Mojokerto, Pasuruan, Gresik) with a total of Fig. 2 Research model 354 creative industry business actors. The unit of analysis is the management of crea- tive industry players, a sample of 194 respondents (54.8%) spread across four cities and regencies based on the purposive sampling method with specific criteria. The activities of the creative industry sector include the manufacture of wallets, leather bags, suit- cases, shoes, handicrafts, headscarves, Muslim clothing, accessories, wedding gifts, and various other creative industries. Sampling technique The sampling technique in this study used purposive sampling with the criteria that creative industry players are at least active from the beginning of 2019 until Decem- ber 2022, have implemented a digital platform in managing their business, the domicile of the business is in the creative industry center area, the business manager is also the owner. Based on these criteria, 194 creative industry players were obtained as samples and respondents. The questionnaires were distributed and filled in by creative industry players who are members of the creative industry center business group with a 1-month filling period (January 5, 2023–February 5, 2023). Variable measurement Strengthening management literacy is a strategic step that is carried out systematically and continuously to acquire new knowledge and encourage the application of innovative digital businesses to improve the quality of products and services (Falahat et al., 2020; Fitriati et al., 2020; Hassan & Raziq, 2019; Hervas-Oliver et al., 2020). The variables in this study are measured based on six indicators, which include: (a) seeking new informa- tion, (b) being active with digital media, (c) opening space for discussion, (d) commit- ment to change, (e) optimizing the role of digital and (f) fast in decision making. Digital business innovation is a behavior reflected by business owners in the creative industry sector to make changes in managing their business through the massive use of information technology-based platforms to encourage higher quality business pro- cesses in providing services and products to consumers (Goerzig & Bauernhansl, 2018; Krishnan & Scullion, 2017; Okundaye et al., 2019; Sanchez Badini et al., 2018; Verdolini et al., 2018). The variables in this study were measured based on six indicators, namely: (a) responsiveness to digital issues, (b) utilizing digital market issues, (c) developing digital management, (d) digital-based processes, (e) developing digital ideas, and (f) digi- tal development fund allocation. Accelerated performance recovery is a structured and massive effort by creative indus- try business owners with a solid commitment to developing management literacy and being able to use it and to build a creative culture and innovative behavior in managing their business with the best quality service and products beyond what is offered by com- petitors, so that they can leverage performance growth (Choi et al., 2019; Sawaean & Ali, 2020; Trianni et al., 2019; Wahyuni & Sara, 2020). The variables in this study were meas- ured based on six indicators, which include: (a) spurring revenue, (b) spurring profit, (c) spurring the acquisition of sales orders, (d) spurring business services, (e) spurring access to resources, (f) spurring business effectiveness and cost efficiency. The three variables mentioned are assessed using a Likert scale consisting of five inter- vals: 1 (strongly disagree), 2 (disagree), 3 (moderately), 4 (agree), and 5 (strongly agree). The resulting measurements are referred to as interval data. Data source The data source in this study comes from primary data sources, namely, data obtained through a questionnaire instrument filled in directly by the owner, who is included in the criteria as a respondent. The measurement scale uses a Likert scale with five inter- vals. Testing The reliability coefficient used Pearson's product-moment correlation coef- ficient, while the reliability coefficient used Cronbach's alpha. The instrument is declared valid if the value of the coefficient of correlated item–total correlation is positive ≥ 0.30, while the instrument is declared reliable if Cronbach's alpha value is ≥ 0.6. Data analysis Data analysis in this study used path analysis, which was performed using standardized regression data processed through the Statistical Product and Service Solutions (SPSS) Version 23 software. Meanwhile, the model in this study can be expressed by mathemat- ical equations as follows: ZDBI = P1 ZSML + ε1, (1) ZAPR = P2 ZSML + P3 ZDBI + ε2. (2) Information—SML: strengthening management literacy; DBI: digital business innova- tion; APR: accelerated performance recovery; P1, P2, P3: coefficient of direct influence; ε1, ε2: standard error. Results and discussion

Description of research results In this study, 194 instruments/questionnaires were sent to respondents according to the number of samples with a filling period of 1 month (January 5, 2023–February 5, 2023). Through the data collection process, 194 which consisted of 45 respondents (23.20%) in Surabaya, 46 in Mojokerto (23.71%), and 49 in Pasuruan (25.26). %) and the city of Gresik 54 (27.84%). The results of the r-count validity test for all measurement items have a value of > 0.30, and Cronbach's alpha has a value of > 0.60 (Tables 1 and 2), therefore all the instruments used in this study are valid and reliable, so the data can be analyzed further. Table 1 shows the validity test results for the three variables with a correlation coef- ficient value of r-count between 0.364 and 0.816; thus, the three variables have a value ≥ 0.30. Table 2 is the result of reliability testing with Cronbach Alpha values between 0.787 and 0.844; thus, the three variables have a value ≥ 0.60. Referring to the meas- urement results and these criteria, the research instruments used for data collection are valid and reliable. Table 3 displays the distribution of respondents by gender and type of business. The male gender comprises 49 individuals, accounting for 25.26% of the total, while the female gender comprises 149 individuals, representing 74.74%. This data indicates that the female gender group exhibits more numerical dominance. This can be attributed to the cultural norms within society, where wives often want to contribute to the family's economic well-being through domestic entrepreneurial endeavors. This table provides a breakdown of the gender composition in different types of businesses. It shows that Table 1 Validity test. Source: Results of data processing Variable Coefficient correlation Critical value Criteria Strengthening management literacy (SML) Digital business innovation (DBI) Accelerated performance recovery (APR) 0.364–0.763 0.438–0.796 0.463–0.816 0.30 0.30 0.30 Valid Valid Valid Table 2 Reliability test. Source: Results of data processing Variable Cronbach alpha Critical value Criteria Strengthening management literacy (SML) Digital business innovation (DBI) Accelerated performance recovery (APR) 0.844 0.60 0.787 0.60 0.815 0.60 Reliable Reliable Reliable Table 3 Gender group and business type. Source: processed by the authors Group of gender Amount Percentage (%) Man 49 25.26 Woman 145 74.74 Total 194 100.00 Creative industry business types Men Woman Quantity % Wallet 2 5 7 3.61 Leather bag 3 21 24 12.37 Luggage 4 15 19 9.79 Shoes 3 8 11 5.67 Handicraft 1 11 12 6.19 Various headscarves – 18 18 9.28 Various Muslim clothing 12 39 51 26.29 Accessories 14 12 26 13.40 Assorted wedding gifts 1 8 9 4.64 Other creative industries 9 8 17 8.76 Total 49 145 194 100.00 Table 4 Business groups by age. Source: processed by the authors Man Woman Amount Percentage (%) Age group of respondents ≤ 25 7 26–35 18 36–45 17 46–55 5 Total ≥ 56 2 49 Business group of age experience ≤ 5 2 6–10 11 11–15 15 16–20 16 Total ≥ 21 5 49 20 27 54 72 51 68 15 20 5 7 145 194 9 11 22 33 28 43 29 45 57 62 145 194 13.92 37.11 35.05 20.31 3.61 100.00 5.67 17.01 22.16 23.20 31.96 100.00 Table 5 Scale range. Source: processed by the authors Scale range Alternative answers Criteria 1.00–1.80 1.81–2.60 2.61–3.40 3.41–4.20 4.21–5.00 Strongly disagree Agree/appropriate Neutral Agree Strongly agree Very low Low Enough High Very high the female gender group predominates in companies that align with their interests, such as wallet products, leather bags, handicrafts, headscarves, Muslim clothing, accessories, and wedding gifts. One hundred fourteen people (78.62%) are involved in these busi- nesses, which are closely associated with the fashion industry. Typically, men in the crea- tive profession tend to support their wives' home industry firms. Table 4 displays the distribution of respondents based on their age and length of expe- rience in business. The largest group of respondents, 72 individuals (37.11%), fell within the age range of 26–35 years. Following closely behind is the group of respondents aged 36–45 years, with 68 individuals (35.05%). As a result, individuals between the ages of 26 and 45 dominate the creative industry sector, accounting for 140 individuals (72.16%). Given this, it is reasonable to expect that these business actors are motivated to gain a thorough understanding of digital platforms and social media. Table 5 indicates that 150 individuals (77.32%) in the survey have more than 10 years of business experience, while the remaining 44 individuals (22.68%) have less than 10 years of experience. This distri- bution aligns with their age range of 26–50 years, considered the productive age group. Consequently, it is unsurprising that this group of business professionals is strongly interested in familiarizing themselves with digital platforms and social media. Data analysis used a Likert scale with the smallest value of 1 and the largest value of 5; thus, the average respondent's answers to the variables studied had a scale range of 0.8 from the research instrument, namely, a scale of 5. Table 6 shows the average value of respondents' answers to indicators of strengthen- ing management literacy ranging from 4.001 to 4.219, so that the average respondent's answers fall into the high criteria. The average respondent's answer to digital business innovation indicators is 4.028–4.114, so the average respondent's answer falls into the high criteria. The average respondent's answer to the indicator for accelerating perfor- mance recovery is 4.025–4.328, so the average respondent's answer is included in the high criteria. Model testing Path analysis was carried out by standardizing regression using the software Statistical Product and Service Solutions (SPSS) Version 23. The results of testing the path coef- ficients of direct and indirect effects can be presented in Tables 6 and 7. Table 7 shows the results of testing the standardized coefficient of the direct effect of strengthening management literacy on digital business innovation and accelerating per- formance recovery with a coefficient value of 0.411 (sig. 0.037) and 0.431 (sig. 0.041), while the coefficient of the direct effect of digital business innovation on accelerating performance recovery is 0.476 (sig. 0.039). The relationship between the variables has a positive and significant influence, so hypotheses H1, H2, and H3 are all accepted. Table 8 shows the results of calculations from the indirect effect coefficient of strength- ening management literacy on accelerating performance recovery through digital busi- ness innovation variables of 0.196 (0.411 0.476); this indicates that the existence of × digital business innovation can be an influential intervening variable, because it helps strengthen the effect of strengthening management literacy on accelerating performance Table 6 Description of variable study. Source: Results of data processing Variable Average Criteria 1. Strengthening management literacy Search for new information Be active with digital media Open discussion room Commitment to change Digital role optimization Quick in decision making 2. Digital Business Innovation Respond to digital issues Take advantage of digital market issues Develop digital management Digitally based processes Digital idea development Allocation of digital development funds 3. Performance recovery acceleration Drive revenue Stimulating profit Stimulate the acquisition of sales orders Stimulating business services Promote resource access Drive cost-effectiveness and cost efficiency 4.066 4.219 4.023 4.107 4.016 4.030 4.001 4.082 4.108 4.072 4.107 4.063 4.114 4.028 4.131 4.025 4.328 4.059 4.190 4.074 4.108 High Very high High High High High High High High High High High High High High High High High High High Very high High High High High Table 7 Coefficient results in direct influence. Source: Results of data processing Independent variable Dependent variables Standardize Sig. (0.05) coefficient Strengthening management literacy Strengthening management literacy Digital business innovation Digital business innovation Accelerated performance recovery Accelerated performance recovery 0.411 0.431 0.476 0.0 37 0.0 41 0.0 39 Table 8 Path coefficient of indirect influence. Source: Results of data processing Independent variable Intervening variables Dependent variables Standardize coefficient Strengthening manage- ment literacy Digital business innovation Accelerated performance 0.196 (sig. α 0.05) recovery = recovery. The total effect of strengthening management literacy variables on accelerating performance recovery is increasing, namely, 0.627 (0.431 + 0.196). Therefore the digital business innovation variable is essential in this research model. The direct effect coefficient can be expressed in the equation models as follows: ZDBI = 0.411 ZSML, (3) ZAPR = 0.431 ZSML + 0.474 ZDBI. (4) Discussion Effect of strengthening management literacy against digital business innovation The results of this study indicate that strengthening management literacy has a positive and significant effect on digital business innovation, with a coefficient of 0.411 sig. 0.037 (Table 6). This shows that business management literacy in the creative industry sec- tor has occurred in a massive process and is carried out consistently to change one's behavior (Okundaye et al., 2019). This creative and innovative behavior is in line with the minds and souls of respondents under 45 years of age, as much as 86.08% (Table 3); of course, at this very productive age, they have a more proactive attitude in dealing with change (Sitepu, 2019). Respondents' creative behavior is reflected in management and service improvement with innovative ideas; therefore, management literacy must be a development program for creative industry businesses in situations of uncertainty due to extreme environmental changes. During the COVID-19 pandemic, industrial sector players felt how difficult it was to adapt to the changes that came so fast, where the busi- ness chain had to be cut off in the middle of the road. However, over time and with the massive business learning process, management literacy changed a person's or owner's perspective that digital business is an alternative to getting out of the current business deadlock. Literacy has changed the owner's attitude that management skills are needed to change the way of doing business and the design of business development during very massive changes; this is in line with of the business

experience of respondents who are less than 15 years as many as 44.85% (Table 3) who want to adapt to change (Hassan & Raziq, 2019). Strengthening management literacy is an investment in ideas that can be utilized to create superior value that exceeds what its competitors offer through crea- tive and innovative processes in providing quality services and products for consumers. Therefore, strengthening management literacy that is oriented towards increasing the ability of management aspects and implementing it through creative behavior can create a culture of innovation in managing digital-based businesses. However, this still requires quite a long time and process; so far, the ability of creative industry sector actors is still very high, however, weak in terms of management literacy, so real support is needed for literacy-strengthening programs, so that the ability to carry out business innovation is also getting better. This study's results align with several researchers (Fitriati et al., 2020; Hassan & Raziq, 2019; Hervas-Oliver et al., 2020; Tseng et al., 2017). Literacy carried out massively can encourage the knowledge transformation process to run systemati- cally and change creative and innovative behavior in managing business and business processes in providing quality services and products for consumers for the better. Effect of strengthening management literacy against the acceleration of performance recovery The results of this study indicate that strengthening management literacy has a direct, positive, and significant effect on accelerating performance recovery with a coefficient of 0.431 sig. 0.041 (Table 6). This explains that management literacy reinforced by digital media can encourage quality management capabilities beyond what is offered by com- petitors, even though the degree of competence is not yet optimal, thus giving a better performance difference compared to pre-pandemic conditions (Goerzig & Bauernhansl, 2018; Mulolli et al., 2017). This is reinforced by the number of respondents 75.26% whose business is related to fashion products, and the number of respondents 74.74% who are women who are undoubtedly relevant to bags, shoes, and garment products (Table 3). Fashion products demand creativity and innovation in line with their lifestyle needs (Dolz et al., 2019), where most respondents are under 45 years of age, 86.18%, of course, demand fulfillment of a more dynamic lifestyle that can trigger performance. get better (Wahyuni & Sara, 2020). Several factors of literacy intensity, management ability, ability to develop ideas, and performance contribute enough to one's point of view. Management development is necessary for organizations that constantly respond to change quickly (Dunets et al., 2018). A strong commitment and fast response to the development of digital platforms are valuable investment requirements for building networks with stakeholders while increasing added value for the creation of better services and products (Henriques & Catarino, 2016). Strong awareness of the importance of the role of digital media and intensity in gathering information from social media and other virtual media increases according to the level of need. This is proven to be able to change a person's behavior to continue to encourage strengthening literacy as an important capital in building man- agement resilience, so that they are always ready to face changes and possible risks that will occur (Verdolini et al., 2018). The results of this study are also in line with other studies (Dolz et al., 2019; Dunets et al., 2018; Henriques & Catarino, 2016; Okundaye et al., 2019). Strengthening management literacy built on a commitment to change will encourage creativity in processing change issues into activities that generate added value in the business cycle. This can improve service and product quality and accelerate the recovery of better performance even though the creative industry business is just enter- ing a new normal life transition era. The impact of digital business innovation against the acceleration of performance recovery The results of this study indicate that digital business innovation has a positive and significant effect on accelerating performance recovery with a coefficient of 0.476 sig. 0.039 (Table 6). This explains that a digital business that is strengthened by innovation is proven to produce superior service value with quality that exceeds what is offered by its competitors; even though the degree of innovation is still not optimal, innovation is still needed to create different dimensions with better value added (Ndiaye et al., 2018). This innovative behavior is reinforced by the enthusiasm of the respondents, who are dominated by 51.03% aged under 35 years, 44.85% with less than 15 years of business experience, and 74.74% female business people (Table 3). Respondents with characters like this are strongly motivated to make changes primarily related to consumer tastes for dynamic fashion products (Staniec et al., 2017). The quality of innovation is determined by the ability to optimize existing resources in building ideas that have the potential to create better services, quality products, effective business cycles, and efficient business processes (Janasová et al., 2017). An effective and efficient process can be interpreted as the organization's ability to produce quality products at a lower cost to increase the value of customer satisfaction and loyalty, which is very strong (Yoshino & Taghizadeh- Hesary, 2019). Innovation is not a waste of costs but the ability to create added value in business cycles and processes; therefore, human resource competence and techno- logical adequacy are available investment requirements (Staniec et al., 2017). The era of new normal life in business is a phase that the creative industry sector should make as a revival phase, because, during the COVID-19 pandemic, this sector has experienced a phase of profit degradation. Management cannot quickly adapt to extreme changes that will cause its business activities to be closed within a certain period. The liveliness of digital business among the younger generation has inspired an authentic organizational culture oriented towards creative and innovative behavior (Felício et al., 2019). Through the use of more effective and efficient conceptual resources over the past 2 years, it has shown promising results. The results of this study also support other results (Felício et al., 2019; Ndiaye et al., 2018; Staniec et al., 2017; Yoshino & Taghizadeh-Hesary, 2019). Digital business innovation must be directed at forming a mindset oriented towards enriching ideas and developing ideas, as well as the ability to compose narratives, be ready to execute ideas correctly and carry out continuous monitoring and evaluation. It will produce models, services, and product designs according to market expectations with a high level of consumer satisfaction to drive the accelerated recovery of the crea- tive industry sector's performance on a massive scale in line with the journey towards a new normal life era in business. Conclusions, recommendations, and limitations Based on the evidence previously described, it can be concluded that strengthening management literacy requires a strong commitment to digital platforms. The ability to access management knowledge content from social media sources and other digital media can be carried out optimally, and ownership of management competencies can be used to improve processes and business cycles effectively and efficiently. Strong management literacy certainly increases the ability to build a creative and innovative culture in generating superior value for service processes and products beyond what competitors can offer to accelerate performance recovery to become more realistic. This shows that strengthening management literacy positively and significantly affects digital business innovation and accelerates performance recovery. Digital business innovation has a positive and significant effect on accelerating performance recov- ery when entering the new normal life era; therefore, all hypotheses are acceptable, because all the variables tested have a positive and significant influence (Sig. below 0.05). The suggestions in this research are that to achieve digital business success, strong support for innovation is needed in all aspects of organizational functions, and a strong commitment to awareness of investing in information technology and other digital platforms, so that the need to create a creative and innovative culture can be appropriately realized. Therefore, strengthening management literacy as a real foun- dation in responding to change must always be maintained through efforts to seek information, then using digital media and open communication spaces with stake- holders. While the limitations of this study are not directly observing the influence of social media, which is massive in changing people's behavior. In contrast, a variable outside the model can have a direct or indirect impact on the innovative behavior of the creative industry sector after the COVID-19 pandemic. A need for an in-depth study of changes in people's perspective on digital business among the creative indus- tries when entering the new normal life era, because changes in digital media behav- ior among business people can certainly bring about changes in commitment to investing in digital platforms and innovative behavior in business processes. Abbreviations APR Accelerated performance recovery DBI Digital business innovation H1 Hypotheses 1 H2 Hypotheses 2 H3 Hypotheses 3 IDR Indonesia Rupiah SML Strengthening management literacy SPSS Statistical Product and Service Solutions Acknowledgements The authors would like to thank Darma Cendika Chatolic University and Wijaya Kusuma University for the non-financial support provided. Author contributions W: conceptualization, methodology, formal analysis, investigation, writing—original draft. YBH: conceptualization, super- vision, validation, funding acquisition, writing—review and editing. SPE: formal analysis, investigation. A: formal analysis, investigation. Funding Not applicable. Availability of data and materials The data will be made available upon request. Declarations Competing interests The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Received: 7 September 2023 Accepted: 13 February 2024

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Performance Recovery Of Creative Sector Industries: Strengthening Management Literacy And Digital Business Innovation

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Performance recovery of creative sector industries: strengthening management literacy and digital business innovation

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Abstract

This study examined the effect of strengthening management literacy on digital business innovation and accelerating performance recovery and examined the impact of digital business innovation on accelerating performance recovery. This study is explanative/associative research accompanied by hypothesis testing. The unit of analysis in this study was creative industry entrepreneurs, with a total population of 354. Sampling in this study used purposive sampling with specific criteria and obtained 194 as a sample size, after which they were referred to as respondents. Path analysis results show that strengthening management literacy directly and significantly influences digital business innovation and accelerates performance recovery; digital business innovation directly and substantially influences the acceleration of performance recovery in the creative industry sector. The findings of this study indicate that strengthening management literacy, which is carried out in a structured and massive manner, will encourage innovative behavior in implementing digital business. Digital business innovation will spur business activities to become more effective, because they are not limited by space and time.

Keywords: Literacy, Management, Business, Digital, Performance

Introduction

The business environment is one factor that can influence a business's success or failure; therefore, any change can disrupt its performance (Battistella et al., 2020; Cantonnet et al., 2019). Performance is a result of implementing the management process carried out by all organizational units using its resources for a specific time. (Sawaean & Ali, 2020). Meanwhile, performance measurement can be formulated according to each organizational unit's targets. Performance measurements should be assessed based on indicators relevant to the prevailing environmental conditions to ensure prompt and suitable implementation of performance recovery strategies (Trianni et al., 2019). The revenue of the creative industry sector witnessed a decline in 2020 compared to the revenue generated in 2019. However, it rebounded in 2021 and continued to grow until the first half of 2022. Nevertheless, the growth could not surpass the revenue achieved in 2019 due to management's failure to adapt to changes that took place quickly and to find

a quick and precise solution (Cantonnet et al., 2019). Changes can occur unexpectedly (Choi et al., 2019), and management should have a strong sensitivity to adapt to changes through creative and innovative behavior in utilizing digital technology platforms (Domi et al., 2019). Environmental changes can affect the management process in managing their business, along with the time process and business learning will undoubtedly affect how to adapt to change (Chang & Cheng, 2019), so that the acceleration of performance recovery will go hand in hand with the policy directions made by management (Fitriati et al., 2020). The availability of technology platforms and social media that can be accessed openly by the public also influences people's behavior in utilizing the value of information. This information is used to strengthen management literacy and encourage digital business innovation (Okundaye et al., 2019) to improve management and business services which are fast, easy, and flexible according to the needs of the community without being limited by the dimensions of time and place (Hassan & Raziq, 2019). The revenue generated by the creative industry sector from 2020 to 2022 has not been able to reach the revenue generated in 2019. This pressing issue requires rapid resolution to restore revenue performance to at least the same level as in 2019. Figure 1 displays the revenue the creative industries sector generated from 2019 to 2022.

Figure 1 depicts the financial gains of the creative industry sector, as derived from a sample dataset of 194 enterprises located in four locations in East Java, namely, Surabaya, Mojokerto, Pasuruan, and Gresik. In 2020, the average income of the creative industry sector was IDR 7.40 billion per city per year, comparable to a 33.52% decline compared to the average income of IDR 22.01 billion in 2019 (a decrease of 66.48%). In 2021, the average revenue per city per year rose to IDR 13.59 billion, representing a 61.74% rise compared to the average revenue in 2019 of IDR 22.02 billion, representing a decline of 38.26%. In 2022, amidst the new normal, the average income per city per year rose to IDR 20.58 billion, marking a 93.49% gain compared to the average income of IDR 22.01 billion in 2019, which had a fall of 6.51%. The revenue generated by the creative industry from 2020 to 2022 has not yet exceeded the income recorded in 2019, despite

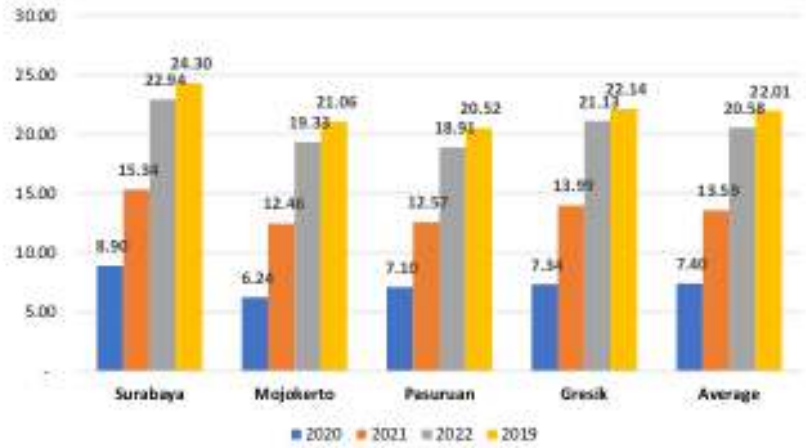

Fig. 1 Creative industry business income (billion Rupiah). Source: Creative industry business income based on sample data

3 years of operation. Similarly, the revenue generated by the creative industry sector, as indicated by the sample data from 2020 to 2022, remains lower than the revenue generated in 2019. This shows a significant impediment to revenue growth during the past 3 years, necessitating prompt action to restore optimal performance.

Based on empirical evidence, the performance recovery of the creative industry sector can be attributed to two essential factors: enhancing management literacy and fostering digital business innovation. These factors are crucial in effectively using digital technology platforms and social media to support a creative culture and manage business operations. This phenomenon indicates that strengthening management literacy and digital business innovation, which is carried out systematically and structured, is expected to accelerate the recovery of organizational unit performance. Strengthening management literacy and digital business innovation oriented towards improving management and business management can accelerate the recovery of the performance of the creative industry sector for the better (Okundaye et al., 2019). The results of research related to the performance of the small-micro and the creative industry sector by several researchers showed different results from one another; this was due to the use of different concepts in explaining this performance (Falahat et al., 2020; Lin & Ho, 2019; Okundaye et al., 2019; Verdolini et al., 2018).

Management literacy refers to individuals' acquisition of management knowledge through digital platforms and social media. This enables business actors to periodically enhance their understanding of management concepts, improving their business management practices (Okundaye et al., 2019). Enhancing management literacy involves individuals' or business entities' deliberate and enduring efforts to augment their understanding and grasp of contemporary management principles. This is achieved through proactive engagement in activities aimed at acquiring new knowledge, using social media platforms, fostering open communication channels, embracing digital platforms, and making informed decisions guided by digital and social media sources (Sawaean & Ali, 2020). Engaging in dynamic activities on digital platforms that focus on acquiring new management information will undoubtedly enhance the managerial skills of individuals or corporate entities, leading to improved performance outcomes.

Business learning over a specific time has encouraged business actors to improve their management skills independently through active literacy. They utilized social media and other digital platforms that can be accessed openly (Nofiarli, 2018; Rauch et al., 2017). Strengthening management literacy has changed their perspective that digital-based business is the right solution to eliminate the isolation of business deadlocks (Lin & Ho, 2019). The year 2022 is the beginning of the rise of the creative industry sector, starting with organizing and improving its business management with accurate literacy guidance, so that its business management can adapt to the new era.

In the new normal life, businesses are starting to grow, although slowly, their performance growth is improving compared to 2020. However, they did not match their performance in 2019 (Sawaean & Ali, 2020). Strengthening management literacy is expected to be able to open barriers that have closed steps and business spaces that have been deadlocked since the COVID-19 pandemic occurred (Hassan & Raziq, 2019). Access to extensive information also accelerates the community's ability to be literate in various areas, including management, financial, and digital literacy. So that management and

business processes grow massively and the quality of business services and products becomes fast, effective, and efficient (Choi et al., 2019).

The era of digital business is a necessity where a business person must be open-minded and willing to accept the fact that business has experienced changes in space and dimensions; new instruments demand services that are fast, easy, and flexible according to the wishes of the community (Foghani et al., 2017). The digital business provides a vast open space for business people to imagine and innovate about services and products, so that quality is the keyword for businesses to create added value, satisfaction, and loyalty for their consumers (Falahat et al., 2020; Verdolini et al., 2018). The COVID-19 pandemic has changed the gloomy face of the creative industry business in East Java. Still, on the other hand, it has also provided positive reinforcement in accelerating changes in behavior and people's perspectives on business (Lucky et al., 2019). Entering a digital business requires adequate psychological readiness, especially for business people still stuttering with information technology and still remembered by the community (Sawaean & Ali, 2020). Digital business innovation provides an opportunity to optimize the role of information technology in enhancing the ability to build a creative and innovative culture for all of its business processes to guarantee the quality of services and products to create advantages that can be gifted to its consumers, beyond what is provided by its competitors (Hassan & Raziq, 2019). Strengthening management literacy and digital business innovation is a relevant phenomenon to explain how management literacy can encourage digital businesses to be wider open and to innovate in a structured manner to accelerate the recovery of better business performance (Wahyuni & Sara, 2020). Strengthening management literacy is expected to be able to increase the owner's ability to manage digital-based businesses through the development of a creative and innovative culture in creating added value service and product quality amid efforts to accelerate the recovery of the performance of the creative industry sector for the better when entering the new normal life era in business. The purpose of this study is to empirically prove the effect of: (1) strengthening management literacy on digital business innovation, (2) strengthening management literacy on accelerating performance recovery, and (3) digital business innovation on accelerating performance recovery. Therefore, this research is expected to be able to explain that strengthening management literacy and digital business innovation, to create space for creativity in managing business for business actors in the creative industry sector and is able to improve the quality of services and better products. To accelerate the recovery of the performance of the creative industry sector, the business owners should be more progressive.

Literature studies

Strengthening literacy management

Strengthening literacy management is a structured and actual effort to increase knowledge through access to technology platforms, information, social media, and other virtual media (Klimczak et al., 2017). So that there is an accumulation of practical, technical, and conceptual skills to manage the business better (Ahmadi & Mohd. Osman, 2018). Literacy strengthening can be carried out by a person or business person who wants to overcome challenges that may occur or hinder the desired goals by opening consulting rooms and seeking the latest information through mainstream and non-mainstream

media, thus providing additional managerial knowledge and skills (Hassan & Raziq, 2019). Environmental changes often make business conditions uncertain. This is because the management is no longer attuned to the new situation; therefore, an accurate and responsive effort is needed to mark changes that can enhance new knowledge (Falahat et al., 2020). Therefore, strengthening literacy can increase management's responsiveness to new environments (Djou & Lukiastuti, 2021). Responsiveness in interpreting digital media and actively using it, as well as a solid commitment to the role of digital media, is a real effort to realize more robust literacy management, resulting in the transformation of management's valuable knowledge for managing digital business to become innovative. (Falahat et al., 2020; Hervas-Oliver et al., 2020).

Strengthening literacy management needs to change a person's or business's attitude and behavior in responding to developments in the digitalization era (Rauch et al., 2017; Sitepu, 2019). People and business activities will be determined by their ability to utilize information technology to support lifestyle fulfillment or manage a business (Tseng et al., 2017). Several business actors often come into contact with information-gathering activities, open discussion spaces, and commitment to digital media. Readiness to accept change is an attitude and behavior that can improve management literacy skills and encourage the creation of cultural innovations in managing digital-based businesses (Fitriati et al., 2020). Strengthening literacy management must be carried out in a structured and sustainable manner, so that the knowledge transfer process can meet the needs and management can adapt to the new environment (Tseng et al., 2017). Creative and innovative behavior can improve the community's service quality, making it easier, faster, and more flexible. In turn, it can accelerate the recovery of better performance (Vásquez et al., 2019). Several indicators used to explain the variable concept of strengthening management literacy have been revealed in research conducted by several researchers (Falahat et al., 2020; Fitriati et al., 2020; Hassan & Raziq, 2019; Hervas-Oliver et al., 2020). These indicators include searching for new information, being active with digital media, opening up space for discussion, committing to change, optimizing the role of digital media, and being fast in decision-making. Those studies also reveal that management literacy, which is carried out systematically and continuously, can encourage the implementation of innovative digital business to improve service quality for the better, so that it can accelerate performance recovery, even though there are some differences in measuring the indicators. Based on those empirical studies, the following hypothesis can be put forward:

$\mathbf{H_1}$ Strengthening literacy management affects digital business innovation in the creative industry sector significantly.

$\mathbf{H_2}$ Strengthening management literacy has a significant effect on accelerating the recovery of the performance of the creative industry sector.

Digital business innovation

Digital business innovation is a planned and conscious activity to carry out actions that can increase added value in managing a digital-based business, so that the business it manages can always create change (Lucky et al., 2019). Digital business is developed

by utilizing digital technology platforms, web applications, or other virtual media that can be selected according to business needs (Mulolli et al., 2017). Digital business has a very open, transparent, easy, fast, and flexible space, because digital platforms can frame public spaces that are not limited by space and time (Okundaye et al., 2019). Individuals or corporations often innovate by utilizing technology issues, management development, and technology-based processes. Technology-based innovation can produce higher quality products, lower costs, faster processes, and results with a better set of value added to leverage organizational performance for the better (Prashar, 2019). An attitude of caring about digital issues, exploring digital-based ideas, and providing funds for technology development are behaviors that can support the creation of a creative culture within a community or organization to generate big ideas to develop effective and efficient business processes (Falahat et al., 2020; Hassan & Raziq, 2019).

Creative culture and innovative behavior are forms of civilizational investment in an organization (Mohamad Radzi et al., 2017). These characteristics can become strategic resources to build competitive advantage for corporates; therefore, these cultural values must be maintained and developed continuously to create a sustainable competitive advantage (SCA) for the organization (Dolz et al., 2019). Businesses in the digital era always demand innovative services and products for their users (Dunets et al., 2018). The sophistication of social media can provide information, friendship communities, and communication through virtual networks and content that can be accessed flexibly, quickly, easily, and cheaply without being separated by space and time dimensions (Goerzig & Bauernhansl, 2018; Sanchez Badini et al., 2018). Changes in people's lifestyles also accelerate the process of cultural transformation, which demands practical and fast services as displayed through virtual information and content on social media (Henriques & Catarino, 2016). The application of digital business must be supported by the ability of a person or corporation to always behave creatively and innovatively in meeting the expectations, desires, and needs of their consumers (Krishnan & Scullion, 2017; Verdolini et al., 2018). Several indicators used to explain the variable concept of digital business innovation have been disclosed in studies conducted by some authors (Dunets et al., 2018; Mohamad Radzi et al., 2017; Okundaye et al., 2019; Prashar, 2019) which include being responsive to digital issues, utilizing digital market issues, developing digital management, digital-based business processes, developing digital ideas and allocating digital development funds. This research also reveals that innovation during massive digital business management can drive business processes to improve the quality of services and products for consumers, so that the added *value* created can accelerate the recovery of better performance even though there are changes in the use of indicators. Based on those empirical studies, the hypothesis can be put forward as follows:

$\mathbf{H_3}$ Digital business innovation has a significant effect on accelerating the recovery of the creative industry sector's performance.

Performance recovery acceleration

Accelerating performance recovery is a strategic and measurable step to optimize ownership of economic resources and manage them through the utilization of conceptual resources (Ndiaye et al., 2018). This strategy must be carried out to accelerate the recovery

of organizational performance faster after experiencing a decline in performance during extreme changes in the business environment (Linder, 2019). Several phases of action must be carried out through a comprehensive evaluation of why performance is declining, how to map environmental problems that occur, how to design practical strategic actions, how to implement them measurably and carry out ongoing monitoring and evaluation (Janasová et al., 2017). Recovery of organizational performance must be carried out through an acceleration strategy by implementing a measurable system (Prima & Ute, 2018), because the downturn that occurred was very extreme, and business activities that disrupted performance had to be restored immediately to conditions before the pandemic hurricane (Felicio et al., 2019). Deterioration in performance causes the organization's service cycle to become hampered (Staniec et al., 2017), where gains in revenue, profit, and acquisition of sales orders must accelerate the cycle, so that services to consumers typically run again (Cantonnet et al., 2019; Sawaean & Ali, 2020). Being active in the use of digital media and trying to maximize the role of digital will undoubtedly open up a more expansive space for access to information (Goerzig & Bauernhansl, 2018), so that management literacy becomes better, where literacy regularity contributes to management development and influences performance recovery better (Choi et al., 2019; Wahyuni & Sara, 2020).

Creative culture and innovative behavior accelerate service cycle improvements in business activities (Klimczak et al., 2017), so that access to economic resources becomes wider, business management becomes more effective, and business process costs become more efficient. Digital business needs innovation support in all aspects of organizational functions (Yoshino & Taghizadeh-Hesary, 2019), so that business processes can produce superior value that exceeds what is offered by its competitors, so that performance results become better and can recover quickly like performance achievements before the crisis occurred (Falahat et al., 2020; Trianni et al., 2019). Several indicators used to explain the variable concept of accelerating performance recovery have been disclosed in the research results (Choi et al., 2019; Sawaean & Ali, 2020; Trianni et al., 2019; Wahyuni & Sara, 2020), which includes spurring revenue, spurring profits, spurring the acquisition of sales orders, spurring business services, spurring access to resources, spurring business effectiveness and cost efficiency. This study also illustrates that the acceleration of performance recovery will be realized well when a person or corporation has a strong commitment to building management literacy on a massive scale and can build a creative culture and innovative behavior in managing a business that consists of all aspects of its activities, to improve quality services and products to consumers are getting better even though there are differences in the use of indicators.

Research model

The framework conceptual of this study is depicted in Fig. 2. Strengthening management literacy is the independent variable (SML); digital business innovation is the intervening variable (DBI); and Accelerated performance recovery is the dependent variable (APR).

Methodology

Population and sample

The population in this study are creative industry business actors domiciled in East Java creative industry centers (Surabaya, Mojokerto, Pasuruan, Gresik) with a total of

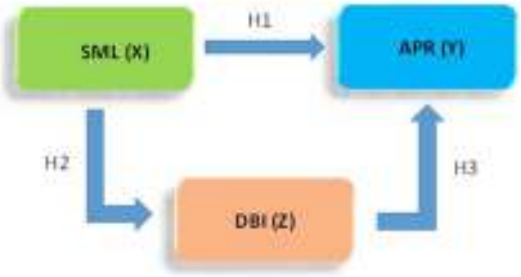

Fig. 2 Research model

354 creative industry business actors. The unit of analysis is the management of creative industry players, a sample of 194 respondents (54.8%) spread across four cities and regencies based on the purposive sampling method with specific criteria. The activities of the creative industry sector include the manufacture of wallets, leather bags, suitcases, shoes, handicrafts, headscarves, Muslim clothing, accessories, wedding gifts, and various other creative industries.

Sampling technique

The sampling technique in this study used purposive sampling with the criteria that creative industry players are at least active from the beginning of 2019 until December 2022, have implemented a digital platform in managing their business, the domicile of the business is in the creative industry center area, the business manager is also the owner. Based on these criteria, 194 creative industry players were obtained as samples and respondents. The questionnaires were distributed and filled in by creative industry players who are members of the creative industry center business group with a 1-month filling period (January 5, 2023–February 5, 2023).

Variable measurement

Strengthening management literacy is a strategic step that is carried out systematically and continuously to acquire new knowledge and encourage the application of innovative digital businesses to improve the quality of products and services (Falahat et al., 2020; Fitriati et al., 2020; Hassan & Raziq, 2019; Hervas-Oliver et al., 2020). The variables in this study are measured based on six indicators, which include: (a) seeking new information, (b) being active with digital media, (c) opening space for discussion, (d) commitment to change, (e) optimizing the role of digital and (f) fast in decision making.

Digital business innovation is a behavior reflected by business owners in the creative industry sector to make changes in managing their business through the massive use of information technology-based platforms to encourage higher quality business processes in providing services and products to consumers (Goerzig & Bauernhansl, 2018; Krishnan & Scullion, 2017; Okundaye et al., 2019; Sanchez Badini et al., 2018; Verdolini et al., 2018). The variables in this study were measured based on six indicators, namely: (a) responsiveness to digital issues, (b) utilizing digital market issues, (c) developing

digital management, (d) digital-based processes, (e) developing digital ideas, and (f) digital development fund allocation.

Accelerated performance recovery is a structured and massive effort by creative industry business *owners* with a solid commitment to developing management literacy and being able to use it and to build a creative culture and innovative behavior in managing their business with the best quality service and products beyond what is offered by competitors, so that they can leverage performance growth (Choi et al., 2019; Sawaean & Ali, 2020; Trianni et al., 2019; Wahyuni & Sara, 2020). The variables in this study were measured based on six indicators, which include: (a) spurring revenue, (b) spurring profit, (c) spurring the acquisition of sales orders, (d) spurring business services, (e) spurring access to resources, (f) spurring business effectiveness and cost efficiency.

The three variables mentioned are assessed using a Likert scale consisting of five intervals: 1 (strongly disagree), 2 (disagree), 3 (moderately), 4 (agree), and 5 (strongly agree). The resulting measurements are referred to as interval data.

Data source

The data source in this study comes from primary data sources, namely, data obtained through a questionnaire instrument filled in directly by the owner, who is included in the criteria as a respondent. The measurement scale uses a Likert scale with five intervals. Testing The reliability coefficient used Pearson's product-moment correlation coefficient, while the reliability coefficient used Cronbach's alpha. The instrument is declared valid if the value of the coefficient of correlated item–total correlation is positive ≥ 0.30, while the instrument is declared reliable if Cronbach's alpha value is ≥ 0.6.

Data analysis

Data analysis in this study used path analysis, which was performed using standardized regression data processed through the Statistical Product and Service Solutions (SPSS) Version 23 software. Meanwhile, the model in this study can be expressed by mathematical equations as follows:

$$Z_{DBI} = P_1 Z_{SML} + \varepsilon_1, \quad (1)$$

$$Z_{APR} = P_2 Z_{SML} + P_3 Z_{DBI} + \varepsilon_2. \quad (2)$$

Information—SML: strengthening management literacy; DBI: digital business innovation; APR: accelerated performance recovery; P_1, P_2, P_3: coefficient of direct influence; ε_1, ε_2: standard error.

Results and discussion

Description of research results

In this study, 194 instruments/questionnaires were sent to respondents according to the number of samples with a filling period of 1 month (January 5, 2023–February 5, 2023). Through the data collection process, 194 which consisted of 45 respondents (23.20%) in Surabaya, 46 in Mojokerto (23.71%), and 49 in Pasuruan (25.26). %) and the city of Gresik 54 (27.84%). The results of the *r*-count validity test for all measurement items have a value of >0.30, and Cronbach's alpha has a value of >0.60 (Tables 1 and 2).

therefore all the instruments used in this study are valid and reliable, so the data can be analyzed further.

Table 1 shows the validity test results for the three variables with a correlation coefficient value of *r*-count between 0.364 and 0.816; thus, the three variables have a value ≥ 0.30. Table 2 is the result of reliability testing with Cronbach Alpha values between 0.787 and 0.844; thus, the three variables have a value ≥ 0.60. Referring to the measurement results and these criteria, the research instruments used for data collection are valid and reliable.

Table 3 displays the distribution of respondents by gender and type of business. The male gender comprises 49 individuals, accounting for 25.26% of the total, while the female gender comprises 149 individuals, representing 74.74%. This data indicates that the female gender group exhibits more numerical dominance. This can be attributed to the cultural norms within society, where wives often want to contribute to the family's economic well-being through domestic entrepreneurial endeavors. This table provides a breakdown of the gender composition in different types of businesses. It shows that

Table 1 Validity test. Source: Results of data processing

Variable	Coefficient correlation	Critical value	Criteria
Strengthening management literacy (SML)	0.364–0.763	0.30	Valid
Digital business innovation (DBI)	0.438–0.796	0.30	Valid
Accelerated performance recovery (APR)	0.463–0.816	0.30	Valid

Table 2 Reliability test. Source: Results of data processing

Variable	Cronbach alpha	Critical value	Criteria
Strengthening management literacy (SML)	0.844	0.60	Reliable
Digital business innovation (DBI)	0.787	0.60	Reliable
Accelerated performance recovery (APR)	0.815	0.60	Reliable

Table 3 Gender group and business type. Source: processed by the authors

Group of gender	Amount		Percentage (%)	
Man	49		25.26	
Woman	145		74.74	
Total	194		100.00	
Creative industry business types	**Men**	**Woman**	**Quantity**	**%**
Wallet	2	5	7	3.61
Leather bag	3	21	24	12.37
Luggage	4	15	19	9.79
Shoes	3	8	11	5.67
Handicraft	1	11	12	6.19
Various headscarves	–	18	18	9.28
Various Muslim clothing	12	39	51	26.29
Accessories	14	12	26	13.40
Assorted wedding gifts	1	8	9	4.64
Other creative industries	9	8	17	8.76
Total	49	145	194	100.00

Table 4 Business groups by age. Source: processed by the authors

	Man	Woman	Amount	Percentage (%)
Age group of respondents				
≤ 25	7	20	27	13.92
26–35	18	54	72	37.11
36–45	17	51	68	35.05
46–55	5	15	20	20.31
≥ 56	2	5	7	3.61
Total	49	145	194	100.00
Business group of age experience				
≤ 5	2	9	11	5.67
6–10	11	22	33	17.01
11–15	15	28	43	22.16
16–20	16	29	45	23.20
≥ 21	5	57	62	31.96
Total	49	145	194	100.00

Table 5 Scale range. Source: processed by the authors

Scale range	Alternative answers	Criteria
1.00–1.80	Strongly disagree	Very low
1.81–2.60	Agree/appropriate	Low
2.61–3.40	Neutral	Enough
3.41–4.20	Agree	High
4.21–5.00	Strongly agree	Very high

the female gender group predominates in companies that align with their interests, such as wallet products, leather bags, handicrafts, headscarves, Muslim clothing, accessories, and wedding gifts. One hundred fourteen people (78.62%) are involved in these businesses, which are closely associated with the fashion industry. Typically, men in the creative profession tend to support their wives' home industry firms.

Table 4 displays the distribution of respondents based on their age and length of experience in business. The largest group of respondents, 72 individuals (37.11%), fell within the age range of 26–35 years. Following closely behind is the group of respondents aged 36–45 years, with 68 individuals (35.05%). As a result, individuals between the ages of 26 and 45 dominate the creative industry sector, accounting for 140 individuals (72.16%). Given this, it is reasonable to expect that these business actors are motivated to gain a thorough understanding of digital platforms and social media. Table 5 indicates that 150 individuals (77.32%) in the survey have more than 10 years of business experience, while the remaining 44 individuals (22.68%) have less than 10 years of experience. This distribution aligns with their age range of 26–50 years, considered the productive age group. Consequently, it is unsurprising that this group of business professionals is strongly interested in familiarizing themselves with digital platforms and social media.

Data analysis used a Likert scale with the smallest value of 1 and the largest value of 5; thus, the average respondent's answers to the variables studied had a scale range of 0.8 from the research instrument, namely, a scale of 5.

Table 6 shows the average value of respondents' answers to indicators of strengthening management literacy ranging from 4.001 to 4.219, so that the average respondent's answers fall into the high criteria. The average respondent's answer to digital business innovation indicators is 4.028–4.114, so the average respondent's answer falls into the high criteria. The average respondent's answer to the indicator for accelerating performance recovery is 4.025–4.328, so the average respondent's answer is included in the high criteria.

Model testing

Path analysis was carried out by standardizing regression using the software Statistical Product and Service Solutions (SPSS) Version 23. The results of testing the path coefficients of direct and indirect effects can be presented in Tables 6 and 7.

Table 7 shows the results of testing the standardized coefficient of the direct effect of strengthening management literacy on digital business innovation and accelerating performance recovery with a coefficient value of 0.411 (sig. 0.037) and 0.431 (sig. 0.041), while the coefficient of the direct effect of digital business innovation on accelerating performance recovery is 0.476 (sig. 0.039). The relationship between the variables has a positive and significant influence, so hypotheses H_1, H_2, and H_3 are all accepted.

Table 8 shows the results of calculations from the indirect effect coefficient of strengthening management literacy on accelerating performance recovery through digital business innovation variables of 0.196 (0.411×0.476); this indicates that the existence of digital business innovation can be an influential intervening variable, because it helps strengthen the effect of strengthening management literacy on accelerating performance

Table 6 Description of variable study. Source: Results of data processing

Variable	Average	Criteria
1. Strengthening management literacy	4.066	High
Search for new information	4.219	Very high
Be active with digital media	4.023	High
Open discussion room	4.107	High
Commitment to change	4.016	High
Digital role optimization	4.030	High
Quick in decision making	4.001	High
2. Digital Business Innovation	4.082	High
Respond to digital issues	4.108	High
Take advantage of digital market issues	4.072	High
Develop digital management	4.107	High
Digitally based processes	4.063	High
Digital idea development	4.114	High
Allocation of digital development funds	4.028	High
3. Performance recovery acceleration	4.131	High
Drive revenue	4.025	High
Stimulating profit	4.328	Very high
Stimulate the acquisition of sales orders	4.059	High
Stimulating business services	4.190	High
Promote resource access	4.074	High
Drive cost-effectiveness and cost efficiency	4.108	High

Table 7 Coefficient results in direct influence. Source: Results of data processing

Independent variable	Dependent variables	Standardize coefficient	Sig. (0.05)
Strengthening management literacy	Digital business innovation	0.411	0.037
Strengthening management literacy	Accelerated performance recovery	0.431	0.041
Digital business innovation	Accelerated performance recovery	0.476	0.039

Table 8 Path coefficient of indirect influence. Source: Results of data processing

Independent variable	Intervening variables	Dependent variables	Standardize coefficient
Strengthening management literacy	Digital business innovation	Accelerated performance recovery	0.196 (sig. $\alpha = 0.05$)

recovery. The total effect of strengthening management literacy variables on accelerating performance recovery is increasing, namely, 0.627 (0.431 + 0.196). Therefore the digital business innovation variable is essential in this research model. The direct effect coefficient can be expressed in the equation models as follows:

$$Z_{\mathrm{DBI}} = 0.411\, Z_{\mathrm{SML}}, \tag{3}$$

$$Z_{\mathrm{APR}} = 0.431\, Z_{\mathrm{SML}} + 0.474\, Z_{\mathrm{DBI}}. \tag{4}$$

Discussion

Effect of strengthening management literacy against digital business innovation

The results of this study indicate that strengthening management literacy has a positive and significant effect on digital business innovation, with a coefficient of 0.411 sig. 0.037 (Table 6). This shows that business management literacy in the creative industry sector has occurred in a massive process and is carried out consistently to change one's behavior (Okundaye et al., 2019). This creative and innovative behavior is in line with the minds and souls of respondents under 45 years of age, as much as 86.08% (Table 3); of course, at this very productive age, they have a more proactive attitude in dealing with change (Sitepu, 2019). Respondents' creative behavior is reflected in management and service improvement with innovative ideas; therefore, management literacy must be a development program for creative industry businesses in situations of uncertainty due to extreme environmental changes. During the COVID-19 pandemic, industrial sector players felt how difficult it was to adapt to the changes that came so fast, where the business chain had to be cut off in the middle of the road. However, over time and with the massive business learning process, management literacy changed a person's or owner's perspective that digital business is an alternative to getting out of the current business deadlock. Literacy has changed the owner's attitude that management skills are needed to change the way of doing business and the design of business development during very massive changes; this is in line with of the business experience of respondents who are less than 15 years as many as 44.85% (Table 3) who want to adapt to change (Hassan & Raziq, 2019). Strengthening management literacy is an investment in ideas that can be

utilized to create superior value that exceeds what its competitors offer through creative and innovative processes in providing quality services and products for consumers. Therefore, strengthening management literacy that is oriented towards increasing the ability of management aspects and implementing it through creative behavior can create a culture of innovation in managing digital-based businesses. However, this still requires quite a long time and process; so far, the ability of creative industry sector actors is still very high, however, weak in terms of management literacy, so real support is needed for literacy-strengthening programs, so that the ability to carry out business innovation is also getting better. This study's results align with several researchers (Fitriati et al., 2020; Hassan & Raziq, 2019; Hervas-Oliver et al., 2020; Tseng et al., 2017). Literacy carried out massively can encourage the knowledge transformation process to run systematically and change creative and innovative behavior in managing business and business processes in providing quality services and products for consumers for the better.

Effect of strengthening management literacy against the acceleration of performance recovery

The results of this study indicate that strengthening management literacy has a direct, positive, and significant effect on accelerating performance recovery with a coefficient of 0.431 sig. 0.041 (Table 6). This explains that management literacy reinforced by digital media can encourage quality management capabilities beyond what is offered by competitors, even though the degree of competence is not yet optimal, thus giving a better performance difference compared to pre-pandemic conditions (Goerzig & Bauernhansl, 2018; Mulolli et al., 2017). This is reinforced by the number of respondents 75.26% whose business is related to fashion products, and the number of respondents 74.74% who are women who are undoubtedly relevant to bags, shoes, and garment products (Table 3). Fashion products demand creativity and innovation in line with their lifestyle needs (Dolz et al., 2019), where most respondents are under 45 years of age, 86.18%, of course, demand fulfillment of a more dynamic lifestyle that can trigger performance. get better (Wahyuni & Sara, 2020).

Several factors of literacy intensity, management ability, ability to develop ideas, and performance contribute enough to one's point of view. Management development is necessary for organizations that constantly respond to change quickly (Dunets et al., 2018). A strong commitment and fast response to the development of digital platforms are valuable investment requirements for building networks with stakeholders while increasing added value for the creation of better services and products (Henriques & Catarino, 2016). Strong awareness of the importance of the role of digital media and intensity in gathering information from social media and other virtual media increases according to the level of need. This is proven to be able to change a person's behavior to continue to encourage strengthening literacy as an important capital in building management resilience, so that they are always ready to face changes and possible risks that will occur (Verdolini et al., 2018). The results of this study are also in line with other studies (Dolz et al., 2019; Dunets et al., 2018; Henriques & Catarino, 2016; Okundaye et al., 2019). Strengthening management literacy built on a commitment to change will encourage creativity in processing change issues into activities that generate added value in the business cycle. This can improve service and product quality and accelerate the

recovery of better performance even though the creative industry business is just entering a new normal life transition era.

The impact of digital business innovation against the acceleration of performance recovery

The results of this study indicate that digital business innovation has a positive and significant effect on accelerating performance recovery with a coefficient of 0.476 sig. 0.039 (Table 6). This explains that a digital business that is strengthened by innovation is proven to produce superior service value with quality that exceeds what is offered by its competitors; even though the degree of innovation is still not optimal, innovation is still needed to create different dimensions with better value added (Ndiaye et al., 2018). This innovative behavior is reinforced by the enthusiasm of the respondents, who are dominated by 51.03% aged under 35 years, 44.85% with less than 15 years of business experience, and 74.74% female business people (Table 3). Respondents with characters like this are strongly motivated to make changes primarily related to consumer tastes for dynamic fashion products (Staniec et al., 2017). The quality of innovation is determined by the ability to optimize existing resources in building ideas that have the potential to create better services, quality products, effective business cycles, and efficient business processes (Janasová et al., 2017). An effective and efficient process can be interpreted as the organization's ability to produce quality products at a lower cost to increase the value of customer satisfaction and loyalty, which is very strong (Yoshino & Taghizadeh-Hesary, 2019). Innovation is not a waste of costs but the ability to create added value in business cycles and processes; therefore, human resource competence and technological adequacy are available investment requirements (Staniec et al., 2017). The era of new normal life in business is a phase that the creative industry sector should make as a revival phase, because, during the COVID-19 pandemic, this sector has experienced a phase of profit degradation. Management cannot quickly adapt to extreme changes that will cause its business activities to be closed within a certain period. The liveliness of digital business among the younger generation has inspired an authentic organizational culture oriented towards creative and innovative behavior (Felício et al., 2019). Through the use of more effective and efficient conceptual resources over the past 2 years, it has shown promising results. The results of this study also support other results (Felício et al., 2019; Ndiaye et al., 2018; Staniec et al., 2017; Yoshino & Taghizadeh-Hesary, 2019). Digital business innovation must be directed at forming a mindset oriented towards enriching ideas and developing ideas, as well as the ability to compose narratives, be ready to execute ideas correctly and carry out continuous monitoring and evaluation. It will produce models, services, and product designs according to market expectations with a high level of consumer satisfaction to drive the accelerated recovery of the creative industry sector's performance on a massive scale in line with the journey towards a new normal life era in business.

Conclusions, recommendations, and limitations

Based on the evidence previously described, it can be concluded that strengthening management literacy requires a strong commitment to digital platforms. The ability to access management knowledge content from social media sources and other digital media can be carried out optimally, and ownership of management competencies can

be used to improve processes and business cycles effectively and efficiently. Strong management literacy certainly increases the ability to build a creative and innovative culture in generating superior value for service processes and products beyond what competitors can offer to accelerate performance recovery to become more realistic. This shows that strengthening management literacy positively and significantly affects digital business innovation and accelerates performance recovery. Digital business innovation has a positive and significant effect on accelerating performance recovery when entering the new normal life era; therefore, all hypotheses are acceptable, because all the variables tested have a positive and significant influence (Sig. below 0.05). The suggestions in this research are that to achieve digital business success, strong support for innovation is needed in all aspects of organizational functions, and a strong commitment to awareness of investing in information technology and other digital platforms, so that the need to create a creative and innovative culture can be appropriately realized. Therefore, strengthening management literacy as a real foundation in responding to change must always be maintained through efforts to seek information, then using digital media and open communication spaces with stakeholders. While the limitations of this study are not directly observing the influence of social media, which is massive in changing people's behavior. In contrast, a variable outside the model can have a direct or indirect impact on the innovative behavior of the creative industry sector after the COVID-19 pandemic. A need for an in-depth study of changes in people's perspective on digital business among the creative industries when entering the new normal life era, because changes in digital media behavior among business people can certainly bring about changes in commitment to investing in digital platforms and innovative behavior in business processes.

Abbreviations

APR	Accelerated performance recovery
DBI	Digital business innovation
H_1	Hypotheses 1
H_2	Hypotheses 2
H_3	Hypotheses 3
IDR	Indonesia Rupiah
SML	Strengthening management literacy
SPSS	Statistical Product and Service Solutions

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Declarations

Competing interests
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