ISSN: 2328-8272 (print)
ISSN: 2328-8280 (online)

Journal of Eastern European and Central Asian Research

International Affairs * Economics * Finance * Management * Marketing

Open Acces Journal

The Institute of Eastern Europe and Central Asia

www.ieeca.org | journal@ieeca.org | +1-612-986-2838

Editorial Team

Dr. Ibrahim Koncak, Ala-Too International University, Bishkek, Kyrgyz Republic ***(WoS Academy Certified Peer Reviewer)***

Dr. Thomas M. Krueger, TX A&M University - Kingsville, United States

Dr. Vasa László, Széchenyi István University, Hungary ***(WoS Publons Academy Certified Peer Reviewer)***

Dr. Anastassiya Lipovka, Almaty Management University, Kazakhstan ***(WoS Academy Certified Peer Reviewer)***

Dr. Ran Liu, Central Connecticut State University, United States ***(WoS Academy Certified Peer Reviewer)***

Dr. Senny Luckyardi, Universitas Komputer Indonesia, Bandung, Indonesia ***(WoS Academy Certified Peer Reviewer)***

Dr. Azamat Maksudunov, Kyrgyz Turkish Manas University, Kyrgyz Republic ***(WoS Publons Academy Certified Peer Reviewer)***

Dr. Izabella Manukyan, Russian-Armenian University, Yerevan, Armenia ***(WoS Academy Certified Peer Reviewer)***

Dr. Anna Matysek-Jedrych, Poznan University of Economics and Business, Poland

Dr. Natanya Meyer, North-West University, South Africa

Dr. Kimberly Millier, Grand Canyon University, AZ, United States

Dr. Arkadiusz Mironko, Indiana University East, IN, United States

Dr. Radu Munteanu, Touro University Worldwide, CA, United States ***(WoS Academy Certified Peer Reviewer)***

Dr. Marcel Acker Natchia, New World University, Ivory Coast ***(WoS Publons Academy Certified Peer Reviewer)***

Dr. Inna Neskorodieva, V. N. Karazin Kharkiv National University, Ukraine

Dr. Chittipa Ngamkroeckjoti, Assumption University, Bangkok, Thailand ***(WoS Academy Certified Peer Reviewer)***

Dr. Jelena M. Lukic Nikolic, Modern Business School, Belgrade, Serbia ***(WoS Academy Certified Peer Reviewer)***

Dr. Cecilia Olexová, University of Economics, Bratislava, Slovak Republic ***(WoS Academy Certified Peer Reviewer)***

Dr. Viktoriya Onegina, Kharkiv National Technical University of Agriculture, Ukraine ***(WoS Publons Academy Certified Peer Reviewer)***

Dr. Dea Pirtskhalaishvili, Ivane Javakhishvili Tbilisi State University, Georgia ***(WoS Academy Certified Peer Reviewer)***

Dr. Nataliia Pavlenchyk, Lviv State University of Physical Culture, Ukraine ***(WoS Academy Certified Peer Reviewer)***

Dr. József Poór, Szent István University, Hungary; J. Selye University, Slovak Republic

Dr. Milena Ratajczak-Mrozek, Poznan University of Economics and Business, Poland

Dr. Sanda Renko, University of Zagreb, Croatia

Dr. Shakhzod Sadyullaev, Tashkent State University of Economics, Uzbekistan ***(WoS Academy Certified Peer Reviewer)***

Dr. Rommel P. Sergio, Canadian University of Dubai, United Arab Emirates

Dr. Sylwia E. Starnawska, SUNY Empire State College, Saratoga Springs, NY, United States

Dr. Ivana Stulec, University of Zagreb, Croatia

Dr. Mike Szymanski, University of Illinois Urbana-Champaign, IL, United States

Dr. Hanna Trojanowska, Warsaw University of Technology, Poland

Dr. Alona Tiurina, National University of Life and Environmental Sciences of Ukraine, Ukraine ***(WoS Academy Certified Peer Reviewer)***

Dr. Kamatchi Preethi Vasudevan, Vellore Institute of Technology, India ***(WoS Academy Certified Peer Reviewer)***

Dr. Lia Warlina, Universitas Komputer Indonesia, Bandung, Indonesia ***(WoS Academy Certified Peer Reviewer)***

Dr. Jonathan Ying, Purdue University, IN, United States

Dr. Tibor Zsigmond, J. Selye University, Slovakia ***(WoS Academy Certified Peer Reviewer)***

Vol. 11 No. 3 (2024): Journal of Eastern European and Central Asian Research

June 2024 Issue.

MANUSCRIPTS

DOI: https://doi.org/10.15549/jeecar.v11i3.1666

Kateřina Petrová, Jan Spatenka, Lukas Vaclavik

668-682

File In PDF

JOURNAL OF EASTERN EUROPEAN AND CENTRAL ASIAN RESEARCH
Vol.11 No.3 (2024)

INNOVATION CAPABILITY: DIGITAL TRANSFORMATION OF HUMAN RESOURCES AND DIGITAL TALENT IN SMES

Isniar Budiarti
Universitas Komputer Indonesia, Bandung, West Java, Indonesia

Deri Firmansyah
Sekolah Tinggi Ilmu Ekonomi PASIM Sukabumi, West Java, Indonesia

ABSTRACT

This research investigated the relationship between the digitalization of human capital, digital talent, and innovation capabilities among Business Unit employees. The mediating role of digital talent in the digital transformation of human resources and innovation capability among SMEs was examined. Business Unit employees were tested using the PLS-SEM method, and a survey was conducted on SME Business Unit employees. The purposive technique was developed with convenience sampling and chosen as a non-probability sampling technique. The primary data sources were 185 respondents who worked within the SME business unit in Indonesia. The findings indicate that the digital transformation of human resources, talent, and innovative capacity has a strong positive correlation. The link between innovative capabilities and digital transformation is mediated by digital talent. This study contributes to the human resources post-recruitment, talent management, and digital talent literature in the management function, and it underscores the crucial role of human and technological factors in the digital transformation of human resources, which is increasingly visible on the path to organizational success.

Keywords: innovation capabilities; digital talents; digital transformational

DOI: https://doi.org/10.15549/jeecar.v11i3.1709

INTRODUCTION

One of the key forces behind the most significant advancements in business and society - Industry 4.0 - is disruptive technology (Gilch & Sieweke, 2021). The digital economy's continued growth and the current state of the combination of innovation and digitalization highlight the potential that can fundamentally change how organizations operate and create value in new ways (Firmansyah et al., 2023; Gawer, 2022; Bogers et al., 2018). The competition in various industries today is digital, and because of this, many businesses believe that implementing digital transformation—the process of changing company operations, competencies, methods, and models to completely benefit from the possibilities and changes presented by digital technologies—is imperative for their operations. This also is a hallmark of a digitally conscious and innovative business strategy (Saarikko et al., 2020). Increasing a company's competitiveness is the aim of digital transformation, as it allows it to surpass companies that were established

digitally but did not face any disruptions (Vial, 2021). This is demonstrated by a company's capacity to innovate to bolster its success by implementing digital changes to its work processes, particularly regarding human resources (Bansal et al., 2023). The digital transformation of human resources (HR) emphasizes how important digital skills are for promoting creativity, and the necessary steps for an organization's human resources to undergo a digital transformation of human resources (HRDT) have been described in certain publications.

On the other hand, Gawer (2022) and Bansal et al. (2023) mentioned that digital disruption has affected human capital in different capacities and that the HR management function experiences digital disruption, which leads to transformation. The critical role of human factors and technology in HRDT is now increasingly evident in the success of innovative organizations. This is further supported by the growing demand for digital talent to foster a creative culture and prioritize the application of digital technology (Bansal et al., 2023; Bresciani et al., 2021; Farooq & Akram, 2021). using digital technology has become increasingly important (Firmansyah, Rifa ' i, et al., 2022), attracting digital talent (Gilch & Sieweke, 2021) to realize the digital transformation that encourages organizations to be innovative in everyday HR practices is also essential (Bansal et al., 2023).

Regarding the importance of innovation and the ability to pursue outstanding business results in digital economic transformation, management talent and talent development programs with a digital perspective are needed (Bansal et al., 2023). This program is required in order to create an attractive system so that the human resources employed, developed, and empowered truly have digital talents. We acknowledge that organizations during the digital transformation process will face challenges when recruiting digital talent; for example, according to Gilch & Sieweke (2020) and Boocock et al. (2020), there is a hunt for digital talent due to limited supply and high demand as new trends trigger corporate change. Not all organizations are born digital; however, organizations still on the journey of going digital are somewhat unfamiliar with new groups that have digital talents as a core skill that are needed in the future.

On the other hand, these skilled HR professionals also are not used to traditional organizations. As a result, attracting digital talent becomes a key challenge. It is often known that one of the main problems confronting businesses on their road toward digital transformation is recruitment, the replenishment of the human resource base to create an organization with innovation capabilities. However, once those new employees with digital talents (DT) are selected to play a vital role in carrying out management functions in the digital transformation process, they must also be tested for effectiveness and success in increasing the organization's innovation capability (IC).

To the extent of our knowledge, there is still little literature on the success of the digital transformation of human capital and the role of digital talent in enhancing an organization's innovation capabilities. The existing literature on the relationship between digital talent, digital transformation, and innovation capabilities focuses more on the digital talent recruitment process as a new target group fuels innovation (e.g., Barinova et al., 2020); the digital skill gap in the workforce during digital transformation; winning and losing tactics in the digital talent race (e.g., Cardenas-Navia & Fitzgerald, 2019); advocating government intervention to introduce mechanisms to attract talent (e.g., Nair, 2019; X. Li et al., 2022); intellectual resources to keep pace with the demands of high innovation capabilities (e.g., Khalique et al., 2023; Obeidat et al., 2021; Patky & Pandey, 2020; Hutahayan, 2021; Dessie & Shumetie Ademe, 2017); development of knowledge in practice with market orientation, technological orientation, economic environment, and innovation strategy (e.g., Aydin, 2021; Gangwani & Bhatia, 2024; and Kolbe et al., 2022); innovation capabilities to increase the competitiveness of small and medium enterprises (SMEs) through successful digital transformation, supported by the usage of ICT (e.g., X. Zhang et al., 2022; Stankovic et al., 2021); digital methods of talent management by presenting human capital and talent management (e.g., (Leskina et al., 2022); and ideas related to talent management in the context of the Fourth Industrial Revolution (e.g., Stopochkin et al., 2022). To improve an organization's capacity for innovation, there are significant gaps that need to be filled. These gaps can offer a more complete picture of the post-

recruitment management process at its conclusion and an insight into digital talent's strategic role in digital transformation.

This study provides and assesses the conceptual framework for HRDT and the function of DT in fostering workers' IC in Indonesian SMEs. It has looked at how DT mediation affects how employees of small and medium enterprises (SMEs) in Indonesia interact with HRDT, DT, and IC. Referring to the innovation index in 2021, Indonesia is ranked 87 with a score of 27.4, down two places from the previous two years (2019 and 2020), and still in 85th position out of 132 countries (World Intellectual Property Organization, 2021). As for the global innovation index at the ASEAN level, Indonesia is below Brunei Darussalam and far behind Singapore, Malaysia, Thailand, and Vietnam. One innovation obstacle Indonesian SMEs face is the uneven distribution of digital talent (LIPI, 2020).

Given that, in the age of technological disruption, digital talent can essentially foster the digital transformation of HR as a means of adapting to changes in the business environment, innovation capacities to adapt and produce new ones so they can endure and expand with improved performance constantly (Firmansyah & Saepuloh, 2022). Consequently, by analyzing how digital transformation impacts the capacity for idea generation, this paper broadens the corpus of information on HR after hiring. This paper also looks at the strategic role of digital talent in HR activities aimed at achieving organizational success.

LITERATURE REVIEW

Digital Transformation

Digital transformation is one of the biggest trends in the corporate sector. According to Nadkarni & Prügl (2021); and Li (2020), this is a managerial challenge that has such a significant influence on business trends that it jeopardizes the survival of not only traditional business models but also digital enterprises in several industries, including music, banking, and law. To continue existing, a company's efforts to go digital or continue to evolve as digital undergo radical organizational changes, such as implementing digital transformation strategies or changing its business model (Chanias et al., 2019; F. Li, 2020a; Gilch & Sieweke, 2021). The objective digital transformation process is a reaction to the evolving business landscape. Utilizing digital technology, digital transformation fundamentally increases productivity and business value (Midhat Ali et al., 2021; Kaur & Kaur, 2021; Morze & Strutynska, 2021). Jeansson & Bredmar (2019) claimed that organizational changes, the application and coordination of digital technology inside an organization, and digital transformation are all closely related, as they facilitate more flexible operations and create and capture new possibilities and value.

Meanwhile, Anim-Yeboah et al. (2020), identified digital transformation indicators. They noted that digital transformation indicators among micro, small, and medium enterprises MSMEs are seen in the ability to follow four stages: processes for introducing digital technology, adjustments to roles and procedures, handling of the ensuing skill shortages, and strategy changes. All of these processes are influenced by managerial cognition, organizational capacity building, social capital development, and human resource development. The adequacy of digital talent from HR that can unite the external with the internal interests of the organization in business digital transformation practices in the current era is becoming increasingly important for business decisions that precipitate innovation, and make adjustments in expanding networks, and are done in real-time in a market when distributing information about goods and services (Firmansyah, Suryana, et al., 2022; Wahdiniwaty et al., 2022). As part of business innovation through digital transformation, organizational change affects talent management and attracts and retains talent (Guerra et al., 2023). Significant competitive advantages can now be achieved from innovation driven by dynamic and sustainable digital transformation capabilities and achievements (Firmansyah & Wahdiniwaty, 2023; F. Li, 2020b; Leão & da Silva, 2021; Obeidat et al., 2021; Firmansyah et al., 2023). The findings of Bansal et al. (2023) showed that innovation capabilities are an integral part of HRDT, thus broadening the perspective of dynamic capabilities and allowing technology to be integrated with each person's factors. This leads to our first hypothesis.

H_1: Digital transformation of HR affects innovation capabilities.

People in various parts of the world have felt advances in digital technology. Therefore, human

resources need to improve innovation and digitalization capabilities to be able to balance them; also, digital transformation needs to be carried out for organizational change. In addition, digital capabilities and skills, as well as the development of innovative thinking, must be evaluated and reassessed (Smirnova et al., 2019). Successful HRDT for digital SMEs emphasizes the importance of deep innovation capabilities in SME HR (Zhang & Chen, 2023; Barišić et al., 2021). The reason is that business development and customer behavior have now been influenced by the digital transformation process, where HR competency will strengthen its transformative-ness (Nadkarni & Prügl, 2021).

The way businesses interact with their clients, manage their operations, set up their business plans, and arrange their workloads has all been completely transformed by digital transformation. This includes identifying the HR competencies required during the hiring process (Barinova et al., 2020; Dan et al., 2021; Gilch & Sieweke, 2021; Haverkort & Zimmermann, 2017; Schallmo et al., 2017; Fahmy et al., 2022; Midhat Ali et al., 2021; Kaur & Kaur, 2021; Hamilton & Davison, 2018). According to Gray & Rumpe (2017), executing digital transformation strategies by all stakeholders across all departments is the primary determinant of success. To build a system of recruiting, hiring, developing, and empowering talented workers who can provide exceptional business results, Barinova et al. (2020), claimed that talent development programs through talent management are necessary for digital transformation. The primary goal is coordinating talent management by developing various talent management architectures, considering global goals, and differentiating strategic roles involving digital skills. Our second hypothesis follows.

H_2: Digital transformation of HR affects digital talent.

Digital Talent

According to Reis et al. (2018), for businesses and workers to successfully undergo digital transformation, they must possess digital talent and build a range of competencies based on the demands and business environment. Dan et al. (2021) described digital talent as individuals who, independent of their organizational form and structure, contribute to digitalization and digital transformation in several enterprises and other fields. Examples of how to interpret an indicator or digital talent include the following: identifying or creating concepts that could result in new digital goods or services; possessing the capacity to direct an organization or activity that carries out one or more of these jobs, duties, or activities, independent of its organizational structure; and taking part in one or more stages, from idea to creation, launch, and improvement, of the development process of new digital goods or services inside a specific organizational environment (Dan et al., 2021). Learning agility, which is closely related to digital talent, is the main competency in developing future digital leaders, according to (Barinova et al., 2020). Learning agility includes adaptability to change, people, the mind, and self-awareness. Barinova et al. (2020) suggested targeting three main perspectives of digital talent: 1) acquiring new knowledge, 2) developing new skills, and 3) changing mentality. HR managers and digital talent from globally competitive industries are under pressure to go digital ahead of their competitors in the current renewable economy era (Morze & Strutynska, 2021). They aim to achieve a competitive advantage by surviving and scaling up innovation (Reis et al., 2018; Osano, 2023). The development, operation, and creation of breakthrough technologies by digital talent have a major positive impact on high-quality regional, local, and national economies (Huang et al., 2023; Ding et al., 2021). Business development is fueled by digital skills in various sectors and areas (Dan et al., 2021; Fahmy et al., 2022). Hypothesis 3, then, is:

H_3: Digital talent influences innovation capabilities

Innovation Capabilities

Innovation, according to the OECD (2005), is the use of new or considerably better products (goods or services), new processes, marketing strategies, or new organizational techniques in workplace organizations, commercial practices, or external interactions (Data, 2005; Gault, 2023). Innovation capabilities are among the most crucial factors enabling businesses across a range of industries to attain a high level of competitiveness in both domestic and foreign markets (Firmansyah & Wahdiniwaty, 2023). The innovation process can be characterized as an uncertain and dynamic process, following a

process of trial and error based on experiential learning and identifying and taking advantage of opportunities (García-Álvarez de Perea et al., 2019). According to (Porter & Stern, 1999), increasing innovation capabilities can encourage economic growth and performance (Donoso, 2017). Innovation capability indicators can be measured at four levels: process, organizational, marketing, and product service innovation capability (Taques et al., 2021; Zastempowski, 2022; Daronco et al., 2023). Didonet & Diaz-Villavicencio (2020) identified preparedness to try new ideas, tracking new behaviors to accomplish anything, and functioning creatively as indicators of innovation potential.

On the other hand, many factors affect innovation capabilities. Understanding and knowing the main drivers of innovation very likely enables sustainable innovation capabilities to be carried out. The findings of Ndubisi et al. (2020); Aydin (2021); Wang & Hu (2020; Ghobakhloo et al., 2021) demonstrated how the growth of knowledge and the capacity for innovation influence innovation capabilities. However, Khalique et al. (2023), Tosoni (2019), and Siek (2022) asserted that high-level intellectual resources from experience, empowerment, learning, education, and training must unquestionably go hand in hand with innovation capabilities. This suggests that having a lot of intellectual resources can make up for having a lot of innovation potential and vice versa. Gangwani & Bhatia (2024) and Kolbe et al. (2022) also mentioned that the most critical factors influencing innovation capabilities are market orientation, technological orientation, the economic environment, innovation strategy, and knowledge development in practice. According to Li et al. (2022), digital talent, digital innovation activities, and digital talent education drive innovation capabilities. Bansal et al. (2023) asserted that the effectiveness of HR digital transformation methods is inextricably linked to innovative skills.

Interestingly, the issue of the digital economy is amplified by the emergence of COVID-19, which accelerated digital transformation and forced organizations to look for innovative methods of operation. Gerards et al. (2021) emphasized the importance of digital talent, new generation, and changing worldviews on management (Barinova et al., 2020), with organizing for innovation and technology adoption (Lanzolla et al., 2021). Work design is concerned with the way of perceiving, organizing, and doing work (Lanzolla et al., 2021) but also worried about the way of perceiving, organizing, and doing work (Minbaeva, 2021), to fulfill the demands of uncertainty and uncertain economic contexts (Di Crosta et al., 2021). This condition, in line with Gerard et al. (2021), Minbaeva (2021), and Bansal et al. (2023), suggests that understanding digital transformation in HRM is crucial for ensuring business continuity as well as for putting forward-thinking companies ready for the need for digital talent in the future. According to Karaboga et al. (2020), to succeed in digital transformation, improve innovative skills, and gain a competitive edge, enterprises need to recruit people, which leads to Hypothesis 4.

***H*$_4$**: Digital talent mediates the influence of the digital transformation of HR on innovation capabilities.

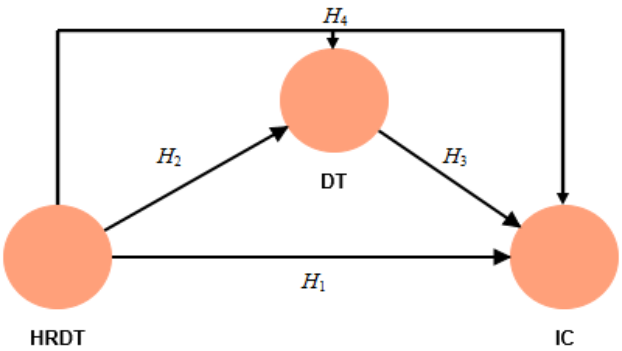

Figure 1: Proposed Conceptual Model

METHODOLOGY

This work aimed to close a research gap by examining and clarifying the concepts of HRDT, innovation skills, and digital talent within the SME framework. Quantitative data analysis determined how DT mediation functions in the link between HRDT and IC. Data from questionnaires sent to respondents as part of a dissemination research instrument were used.

A direct survey was used to gather the primary data needed for the empirical analysis in this study. Secondary data were sourced from books and article manuscripts published in reputable journals and used for the direction of theory development and discussion.

The sample frame was not determined, so sampling was carried out with purposive techniques and developed with convenience sampling selected to obtain responses from

personnel or employees within the scope of SMEs in Indonesia. Nominations from respondents were explicitly made based on standards that aligned with the study's goals. The following criteria were used for sampling: (1) SMEs must employ at least five people; (2) workers must have worked for the company for a minimum of three years; (3) comprehension and usage of digital technologies; (4) clarity of financial data, market access; and capital, and (5) carrying out online business practices both in meeting the material needs of raw materials as well as marketing, services, and transactions in the marketplace on specific digital platforms.

The data collection period was June 2022–December 2022, and the study focused on the West Java-Indonesia region. The research team administered the questionnaire and circulated it via Google Forms (WhatsApp, Facebook, and Twitter), which was also equipped with direct interaction via telephone and face-to-face approaches. The questionnaire, which used a 5-point Likert scale, was distributed to a population of 253 employees, and the response rate for well-received responses was 73.12%, so as many as 185 employees were finally selected as the sample data for analysis. The HRDT concept was developed with eight empirical concepts (HRDT1 to HDRT8), DT was developed with seven empirical concepts (DT1 to DT7), and the IC concept was developed with ten empirical concepts (IC1 to IC10). The time needed to fill out as many as 25 items from all three constructs in the questionnaires was 15 to 17 minutes.

In terms of gender, 58.38% of the respondents were male, and the remaining 41.62% were female. With respect to the age of employees, 37.30% were in the 25-30 age range, 28.65% were 31-35 years, 17.30% were less than 25 years, and the remaining 16,76% were more than 35 years old. As for education, 63.24% of the respondents have a bachelor's degree, and 36.76% have a high school education.

PLS-SEM4 was used to examine model creation. By examining the construct's R^2 level, the prediction-oriented PLS-SEM technique seeks to explain the variation of endogenous latent variables, the primary target's predictive capacity (Hair et al., 2011b), and the high and low R^2 assessment levels depending on the research discipline. Evaluation of measurement models for convergent and discriminant validity refers to recommendations ((Hair et al., 2011; Fornell & Larcker, 1981), and Kock (2017)), i.e., measured by Cronbach's alpha (Cα) and if composite reliability (CR) is > 0.7 with loading factors (LF) ≥ 0.7 is met, this indicates excellent and reliable consistency (W. W. Chin, 2010). The full collinearity cut-off is 3 (Kock & Lynn, 2012; Kock, 2015, p.6; Kock, 2017). It evaluates the model's fit by viewing if the value of R^2 is in the range of values 0,75, 0,50, and 0,25, meaning strong, moderate, and low fit, respectively (Hair et al., 2011b, p.147; Henseler et al., 2016; Hair et al., 2019: p.18). According to (Hu & Bentler, 1998; Lohmöller, 2013; Henseler et al., 2016, p.10) and other sources, model fit is still attained if the SRMR value is less than 0,10. For more on the PLS-SEM normative fit index (NFI) criteria, see Henseler et al. (2016, p.9-10); Hair et al. (2017); dan Bagga et al. (2023).

RESULTS AND DISCUSSION

Pearson Correlation

The Pearson product-moment correlation value (r) was used in this investigation to ensure that the exogenous variables were multicollinear and had construct validity. In the event where the correlation coefficient (r) is less than 0.8 (< 0,8), construct validity is indicated (Nunnally, 1978; Bagga et al., 2023). When viewed from all latent variables in the model, it shows that VIF is below 5 (VIF < 5) in the PLS-SEM algorithm, concluding that there is no multicollinearity in the model and it is free from bias (Kock, 2015, p.9); see Table 2. As can be seen in Table 1, all of the correlation coefficients (r) for the product-moment relationship (r) between latent constructs are less than 0.8. This means the construction is correct, but the correlation is not very close.

Table 1: Correlation (r) between HRDT, DT, and IC

Construct	HRDT	DT	IC
HRDT	-	0.593**	0.563**
DT		-	0.632**
IC			-

Note: **Correlation is significant at 0.01 level

Table 2: Measurement model results

Reference	Selective items (after repair of factor analysis)		Factors Loading	Cα	CR	AVE	VIF
Anim-Yeboah et al. (2020); Jeansson & Bredmar (2019).	HRDT1.	Use and alignment of digital technology	0.743	0.820	0.873	0.580	1.627
	HRDT2.	Changes in functions and processes	0.808				2.042
	HRDT3.	Seize opportunities and create new value	0.768				1.751
	HRDT4.	The strategic shift in HR development	0.775				2.131
	HRDT5.	Strategic shifts in organizational capacity building	0.710				1856
Barinova et al., (2020); Dan et al., (2021)	DT1	Gaining new knowledge	0.733	0.753	0.843	0.574	1.530
	DT2	Develop new skills	0.703				1.480
	DT6	Changing mentality	0.806				1.747
	DT7	Allows can lead an activity through which this task is performed	0.784				1.674
Keskin (2006); OECD (2005); Gault (2023); Taques et al., (2021); Zastempowski (2022); & Daronco et al., (2023)	IC1	Readiness to test ideas	0.771	0.740	0.836	0.561	1.919
	IC2	Have creativity	0.749				1.873
	IC6	Innovation capabilities, processes, products and services	0.714				1.373
	IC7	Organizational innovation capabilities	0.761				1.507

Note: The significant values of all indicators are at the level of 0.001 ($p < 0.001$), complemented by the fulfillment of the Cα, CR, AVE, VIF of HRDT, DT, and IC.

Measurement Model Evaluation

The PLS-SEM measurement model was examined using latent variable constructions. Convergent and discriminant validity were used to find the indications corresponding to the measured constructs. Cronbach Alpha (Cα) and composite reliability (CR) values were used to calculate variable reliability, and the findings of AVE values were used to assess convergent validity, which assesses the same indicator values as respondents' views (Hair et al., 2011; Bagga et al., 2023). As for the discriminant's validity, as Kock (2017) mentioned, it was used to ascertain if an indicator linked to one latent construct ought not to gauge elements from a different latent construct.

Table 2 shows the model measurements after factor analysis improvement. The latent variable's loading factor exceeds the required minimum value of 0.6. According to statistics, any loads outside of the allowable factor are more than 0.7 (Hair et al., 2013). Due to loading factors with values below 0.70 and multicollinearity above 3.3, as many as twelve items from three constructions were forced to be removed. In the end, the remaining thirteen items were retained and accepted with a variation in loading factor from 0.703 to 0.806. Table 2 produces findings showing that HRDT, DT, and IC met the reliability scale. When all Cα and CR have a value > 0.7, reliability has a good consistency. Although all constructions have AVE coefficients greater than 0.5, as Fornell & Larcker (1981) suggested, the minimum value required to demonstrate considerable convergent validity is 0.5. Table 2's AVE coefficient value shows acceptable validity. The results illustrate the construct's dependability and each of the three constructions agrees with the associated model. On the other hand, the evaluation results indicate collinearity problems between constructions; obtained values for VIF in all constructions are below the cut-off value of 5 (Kock & Lynn, 2012) and even below 3.3 (as recommended by Kock, 2015, p.6; Kock, 2017). Fornell & Larcker, 1981) proposed a theory that may be utilized to evaluate the validity of discriminants and latent components using the square root of the AVE and the correlation coefficients between the constructs. Suppose the diagonal value of each AVE component (square root) is higher than the diagonal value below it. In that case, it is imperative to adhere to the recommendations made by Hair et al., (2011). This study shows that the steps used have met the requirements for discriminant validity.

Evaluating the Suitability of the Model to the Conceptual Model

As part of the fit model methodology, SRMR and NFI were investigated in this work. The predictive ability of the proposed model was evaluated by looking at the value of the coefficient of determination (R^2) of endogenous latent construction (DT and IC), a structural model with a mediating role from DT. R^2's meaning describes the amount of observed construct variances. Referring to Figure 2, the coefficient of determination (R^2) for DT is 35.2%, whereas R^2 for IC is 45.4%. As stated by Hair et al. (2011b, p.147), each of these R^2 values demonstrates that the model has a moderate predictive potential and can transfer all endogenous constructs.

The SRMR value of 0.097 (< 0,10) shows that model fit is still achievable (Hu & Bentler, 1998), and refers to Henseler et al. (2016, p.10), who explained how the PLS-SEM method takes prediction-oriented goals and variance errors in model estimation into account. According to Lohmöller (2013), while rejecting and modifying the model based on thresholds for these fit measures, the fundamental components of the PLS-SEM algorithm's target function are ignored (Henseler et al., 2016). Moreover, the Normed Fit Index (NFI) value—achieved at 0.678, lower than the suggested criterion—must be larger than 0.90 for the model fit to be successful (Bentler & Bonett, 1980). However, Hair et al. (2021) stated that model fit always changes. Unlike confirmation analysis (CB-SEM), exploratory and predictive analysis (PLS-SEM) does not need the use of NFI (Bagga et al., 2023). It is uncommon to use NFI (Henseler et al., 2016, p.9-10). Every fit measure in this model must have its naïve benchmarks and use guidelines (Chin et al., 2020; Hair et al., 2017; Hair et al., 2021; Hair, Sarstedt et al., 2019; Khan et al., 2019; Ringle et al., 2020; and Ringle et al., 2023).

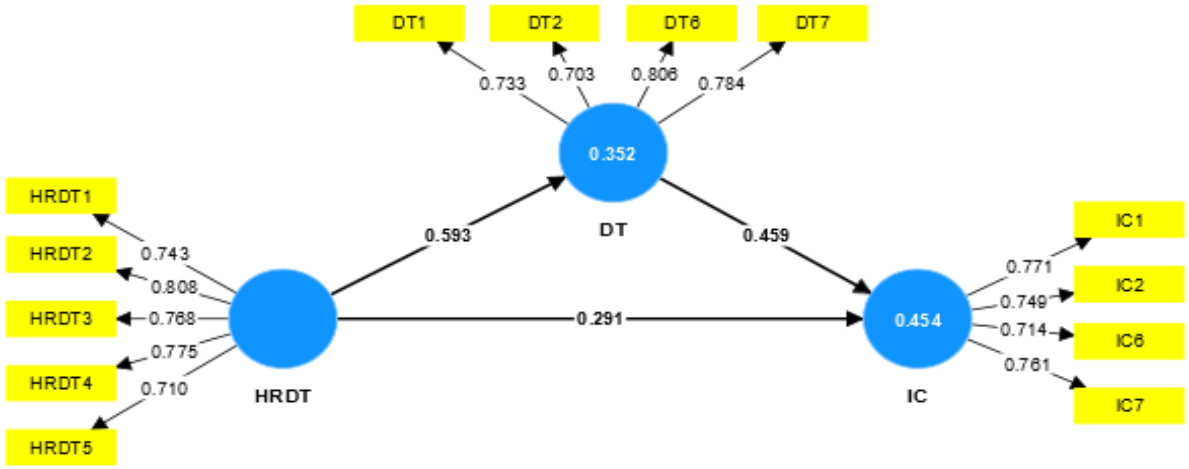

Figure 2: The structural model explains the respective values of the direct and indirect impacts.

Structural Model Evaluation

Following (Hair et al., 2011b), who developed indirect effects of mediation models, this study measures the indirect impacts of the proposed conceptual mediation model through bootstrapping procedures. The parameter estimation of the direct impact on the proposed model is presented in Table 3, then analyzed and discussed in three main discussions to answer the hypothesis.

Table 3: Parameter estimates of direct effect.

Hypothesis	Path Relationship	OS	DE	SE	T-Statistics	p-value	Results
H1	HRDT -> IC	0.563	0.291	0.051	10.987	0.000	Accepted
H2	HRDT -> DT	0.593	0.593	0.052	11.368	0.000	Accepted
H3	DT ---> IC	0.459	0.459	0.071	6.493	0.000	Accepted
H4	HRDT -> DT -> IC	For mediation effects, see Table 4					

Note: OS, original sample; DE, immediate effect; SE, standard error; β = standardized path coefficients.

First, the path analysis results show a positive relationship between HRDT and IC with β = 0.291, significant at p = 0.000 (H_1 accepted). There is a mutually reinforcing relationship. It can be concluded that if the use and alignment of technology in the digital transformation process change how SMEs operate more adaptively, supported by management and HR talents, innovation capabilities can be managed and improved through HR creativity within SMEs by making gradual adjustments to existing business models. Previous studies (Guerra et al., 2023; Wahdiniwaty et al., 2022; Bansal et al., 2023; Saarikko et al., 2020), support this finding. The digital transformation process within SMEs that combines adopted technology with adequate individual employee digital readiness can encourage expanding innovation capabilities in dynamic business operations.

Second, the results indicate a favorable correlation between HRDT and DT. with β = 0.593 and significance at p = 0.000 (H_2, accepted). The process of business digital transformation within SMEs affects critical thinking, including understanding the application of management functions and how existing HR digital talents can be managed and developed in a more strategic direction so that they are trained continuously to acquire new knowledge and develop new skills to carry out work adaptively supported by a high mentality. These results are consistent with earlier studies (Barinova et al., 2020; Gilch & Sieweke, 2021; Dan et al., 2021; Fahmy et al., 2022; Schallmo et al., 2017; Gray & Rumpe, 2017; Haverkort & Zimmermann, 2017). In an uncertain business environment, widespread competitive turmoil, business automation, and digitalization continue to challenge, and even large-scale business movements continue to pressure SMEs. It is necessary to have a multidimensional construction that integrates digital factors with HR talents supported by digital infrastructure, architecture, capabilities, and creativity of individual employees.

Third, the analysis's findings also reveal that DT and IC have a significant positive association at p = 0.000 and have β = 0.459 (H_3, accepted). The adequacy of digital HR talent among employees in the scope of SMEs shows that the variety of HR competencies needed in business in Industry 4.0 are met. This allows employees to have high ideas and creativity, and it also allows them to lead activities through the tasks carried out without always having to wait for instructions from leaders and business owners. HR talent supports organizations in enhancing innovation capabilities. The findings are reinforced by research by Gerards et al. (2021), Lanzolla et al. (2021), Minbaeva (2021), Bansal et al. (2023), Karaboga et al. (2020), Huang et al. (2023), Morze & Strutynska (2021); and Ding et al., (2021). HR talent aims to achieve a competitive advantage by surviving and scaling up innovation (Reis et al., 2018; Osano, 2023). The development, operation, and creation of breakthrough technologies by digital talent have a major positive impact on regional, local, and national economies (Karaboga et al., 2020; Huang et al., 2023; Ding et al., 2021). Business development is fueled by digital skills in various sectors and areas (Dan et al., 2021; Fahmy et al., 2022).

Mediation Role Analysis

The estimation of mediation model parameters (Table 4) shows that with β =, the indirect effect of DT on the relationship between HRDT and IC was statistically significant, with a p-value of 0.0001 and an H4 acceptance rate of 0.227%.

Table 4: Estimates of the indirect effects parameters

Hypothesis	Path Relationship	IDE	TE	SE	VAF	T-Statistics	p-value	Results
H4	HRDT → DT → IC	0.227	0.518	0.056	0.4382	4.852	0.000	Accepted

Note: IDE, indirect effect; TE, total effect; SE, standard error; VAF, value adjustment factor; TE = DE + IDE.

How well the indirect effects of DT can mediate the relationship between HRDT and IC can be found by figuring out the value adjustment factor (VAF). This is done by dividing the indirect effects (IDE) value by the total value of the securities (TE); VAF = IDE/TE. According to Hair et al. (2012), if the VAF value is <20%, there is no mediation effect; if the VAF value is >20 but <80%, there is partial mediation. Moreover, if the VAF value is >80%, it has a full mediation effect. The results of the VAF evaluation to prove H4, with an indirect effect of 0.227, obtained a VAF value of 0.4382 (VAF = 43.82%; VAF >20% but <80%). These results conclude that DT partially mediates HRDT's relationship with IC, thus filling the research gap. This finding concludes that the digital transformation of HR within SMEs can drive the effectiveness and efficiency of the management function to manage and improve innovation capabilities by integrating human factors and technology-oriented management talent and digital talent towards sustainable organizational success. Successful digital transformation practices can create compelling systems for hiring, developing, and empowering talented employees to achieve outstanding business outcomes. This will happen when talent management coordination is established by considering global strategies, building different talent management architectures, having creativity in managing organizations, and differentiating strategic positions involving digital talent.

CONCLUSION AND RECOMMENDATION

The results of the pathway analysis research indicate a strong positive correlation between HRDT and IC. The association between DT and IC was considerably favorable, and HRDT had a significant positive relationship with DT. It is recognized that research studies exploring the relationship between digital transformation in general, digital talent, and innovation capabilities have been abundant, and several studies have been conducted in the SME sector in Indonesia related to the digital readiness of SME personnel and actors. However, this arena still needs to be explored more broadly. The novelty of this research is important because previous research has not examined the role of digital talent mediation in the relationship between human resource transformation and innovation capabilities, considering the role of selected employees after recruitment within the SME sector in Indonesia. This research on transforming human capital and digital talent is equally examined to fill the research gaps. It also has the potential to provide a more comprehensive view towards the end of the post-recruitment management process and a comprehension of the strategic function of digital talent in digital transformation to enhance organizational innovation capabilities.

Theoretical conclusions are that the recruitment, development, and strategic role of DT through the talent management program ensures the broad enactment of the relationship between HRDT and IC. Second, the validation of the empirical model framework that this study has carried out helps define DT as a facilitator which significantly bridges the relationship between HRDT and IC among employees within SMEs in Indonesia, referring to the talent management program that expands the effect of DT mediation. Third, the findings of this study contribute to the previous literature outside Indonesia about the insistence on the importance of DT in business in the era of digital economic transformation as a mediator in HRD and IC relations, as well as management processes and post-recruitment success guarantees, in the context of Indonesian SMEs. Fourth, the gaps filled in this study have not been studied, nor their relation in the post-recruitment management process. In short, to improve organizational IC in the digital economy era, an adequate understanding of DT's strategic role in HRDT is necessary.

From a practical point of view, this research contributes to broadening the horizons about the increasing importance of DT for academics, practitioners, and productive ages in the workforce, who have the potential to have more competent and professional qualities seen in the recruitment process and talent development management by human resource management (HRM). First, the SME sector can empower and develop employee talents and educate multitalented seekers and assessors by developing clearly planned programs. Second, the implications for SME management at the strategic level need to design post-recruitment education and training programs to increase the important role of existing human resources with technology in HRDT and the importance of digital talents that support innovation capabilities in

work environments that require adaptive behavior. Third, new opportunities will potentially open up for SME sector business actors and managers in the future to develop a culture of creativity and focus on the adoption of digital technology by considering digital talents in HR activities that bridge the growth of novelty in innovation thinking and real innovation capabilities for the progress of SMEs. In the digital era, technology and digitalization play an essential role in SMEs, education and training programs, HR competencies based on appropriate technology, digital literacy, and complete professional training in the workplace can effectively integrate human resources and technology and develop DT towards the end of a successful management process in the context of SMEs. Fourth, adaptive behavior, innovative culture, investment and adoption of technology, and digitalization in the intergenerational world of business, academia, and human resources in society can be a model in the perspective of economic issues that continue to be renewable to create core competencies and sustainable competitive advantages.

The study does have some limitations. First, it is difficult to generalize because it relied on respondents' responses from SME employees with only a few essential company functions. Future research is recommended to conduct research in the scope of business or large-scale industry. Second, this research focuses on post-recruitment HR digital talents. Further research can be conducted, ranging from job analysis to recruitment of talent needed and the vital role of talent management in measuring HR success in organizational development in the age of the digital economy. Third, the research focuses on the digital transformation of HR and digital talent among employees affiliated with digital-based SMEs and ignores traditional SMEs. Future research is suggested to be able to utilize both scopes so that it can produce exciting findings and provide more comprehensive benefits.

REFERENCES

Anim-Yeboah, S., Boateng, R., Odoom, R., & Kolog, E. A. (2020). Digital transformation process and the capability and capacity implications for small and medium enterprises. *International Journal of E-Entrepreneurship and Innovation (IJEEI)*, *10*(2), 26–44. https://doi.org/10.4018/IJEEI.2020070102

Aydin, H. (2021). Market orientation and product innovation: the mediating role of technological capability. *European Journal of Innovation Management*, *24*(4), 1233–1267. https://doi.org/10.1108/EJIM-10-2019-0274

Bagga, S. K., Gera, S., & Haque, S. N. (2023). The mediating role of organizational culture: Transformational leadership and change management in virtual teams. *Asia Pacific Management Review*, *28*(2), 120–131. https://doi.org/10.1016/j.apmrv.2022.07.003

Bansal, A., Panchal, T., Jabeen, F., Mangla, S. K., & Singh, G. (2023). A study of human resource digital transformation (HRDT): A phenomenon of innovation capability led by digital and individual factors. *Journal of Business Research*, *157*, 113611. https://doi.org/10.1016/j.jbusres.2022.113611

Barinova, E. P., Sheremetyeva, E. N., & Zotova, A. S. (2020). *Digital Talents: Realities and Prospects BT - Digital Age: Chances, Challenges and Future* (S. I. Ashmarina, M. Vochozka, & V. V. Mantulenko (eds.); pp. 327–334). Springer International Publishing. https://doi.org/10.1007/978-3-030-27015-5_39

Barišić, A. F., Barišić, J. R., & Miloloža, I. (2021). Digital transformation: challenges for human resources management. *ENTRENOVA-ENTerprise REsearch InNOVAtion*, *7*(1), 357–366. https://doi.org/10.54820/GTFN9743

Bogers, M., Chesbrough, H., & Moedas, C. (2018). Open Innovation: Research, Practices, and Policies. *California Management Review*, *60*(2), 5–16. https://doi.org/10.1177/0008125617745086

Boocock, A., Page-Tickell, R., & Yerby, E. (2020). The Dis-evolution of Strategic HRM in the Gig Economy from Talent Management to Supply Chain Manager. In R. Page-Tickell & E. Yerby (Eds.), *Conflict and Shifting Boundaries in the Gig Economy: An Interdisciplinary Analysis* (pp. 89–105). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83867-603-220201008

Bresciani, S., Ciampi, F., Meli, F., & Ferraris, A. (2021). Using big data for co-innovation processes: Mapping the field of data-driven

innovation, proposing theoretical developments and providing a research agenda. *International Journal of Information Management*, *60*, 102347. https://doi.org/10.1016/j.ijinfomgt.2021.102347

Cardenas-Navia, I., & Fitzgerald, B. K. (2019). The digital dilemma: Winning and losing strategies in the digital talent race. *Industry and Higher Education*, *33*(3), 214–217. https://doi.org/10.1177/0950422219836669

Chanias, S., Myers, M. D., & Hess, T. (2019). Digital transformation strategy making in pre-digital organizations: The case of a financial services provider. *The Journal of Strategic Information Systems*, *28*(1), 17–33. https://doi.org/10.1016/j.jsis.2018.11.003

Chin, W., Cheah, J.-H., Liu, Y., Ting, H., Lim, X.-J., & Cham, T. H. (2020). Demystifying the role of causal-predictive modeling using partial least squares structural equation modeling in information systems research. *Industrial Management & Data Systems*, *120*(12), 2161–2209. https://doi.org/10.1108/IMDS-10-2019-0529

Chin, W. W. (2010). *How to Write Up and Report PLS Analyses BT - Handbook of Partial Least Squares: Concepts, Methods and Applications* (V. Esposito Vinzi, W. W. Chin, J. Henseler, & H. Wang (eds.); pp. 655–690). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-32827-8_29

Dan, S., Ivana, D., Zaharie, M., Metz, D., & Drăgan, M. (2021). *Introduction BT - Digital Talent Management: Insights from the Information Technology and Communication Industry* (S. Dan, D. Ivana, M. Zaharie, D. Metz, & M. Drăgan (eds.); pp. 1–7). Springer International Publishing. https://doi.org/10.1007/978-3-030-76750-1_1

Daronco, E. L., Silva, D. S., Seibel, M. K., & Cortimiglia, M. N. (2023). A new framework of firm-level innovation capability: A propensity–ability perspective. *European Management Journal*, *41*(2), 236–250. https://doi.org/https://doi.org/10.1016/j.emj.2022.02.002

Data, I. I. (2005). Oslo manual. *Paris and Luxembourg: OECD/Euro-Stat*. https://www.conicyt.cl/wp-content/uploads/2014/07/Manual-de-Oslo.pdf

Di Crosta, A., Ceccato, I., Marchetti, D., La Malva, P., Maiella, R., Cannito, L., Cipi, M., Mammarella, N., Palumbo, R., & Verrocchio, M. C. (2021). Psychological factors and consumer behavior during the COVID-19 pandemic. *PloS One*, *16*(8), e0256095. https://doi.org/10.1371/journal.pone.0256095

Didonet, S., & Diaz-Villavicencio, G. (2020). Innovation management in market-oriented SMEs: learning and internal arrangements for innovation. *International Journal of Organizational Analysis*, *28*(5), 985–1003. https://doi.org/10.1108/IJOA-09-2019-1885

Ding, C., Liu, C., Zheng, C., & Li, F. (2021). Digital economy, technological innovation and high-quality economic development: Based on spatial effect and mediation effect. *Sustainability*, *14*(1), 216. https://doi.org/10.3390/su14010216

Donoso, J. F. (2017). A simple index of innovation with complexity. *Journal of Informetrics*, *11*(1), 1–17. https://doi.org/https://doi.org/10.1016/j.joi.2016.10.009

Fahmy, S., Deraman, A., Puteh, M., Nasir, A., Roslina, W., & Haslinda, N. (2022). An analysis of digital talent in academic publications reflection on malaysia's digital transformation strategies. *International Journal of Integrated Engineering*, *14*(3), 184–192. https://doi.org/10.30880/ijie.2022.14.03.020

Farooq, M. S., & Akram, S. (2021). IoT In Agriculture: Challenges And Opportunities. *Journal of Agricultural Research (03681157)*, *59*(1).

Firmansyah, D., Rifa'i, A. A., & Suryana, A. (2022). Human Resources: Skills and Entrepreneurship in Industry 4.0. *Formosa Journal of Applied Sciences*, *1*(6), 1221–1240. https://doi.org/10.55927/fjas.v1i6.1899

Firmansyah, D., & Saepuloh, D. (2022). Daya Saing: Literasi Digital dan Transformasi Digital. *Journal of Finance and Business Digital*, *1*(3), 237–250. https://doi.org/10.55927/jfbd.v1i3.1348

Firmansyah, D., Suryana, A., Rifa'i, A. A., & Susetyo, D. P. (2022). DMT-CE (Digital Media

Training-Capability Enhancement) Culinary Business Sector Sop Asep Amih Sukabumi to Improve Online-Based Adaptive Marketing Capabilities. *Asian Journal of Community Services*, *1*(5), 217–230. https://doi.org/10.55927/ajcs.v1i5.1826

Firmansyah, D., & Wahdiniwaty, R. (2023). Prediction of Innovation Capability: the Role of Mediation in the Relationship between Digital Transformation and Competitiveness with the PLS-SEM Model. *International Journal of Management and Business Intelligence*, *1*(2), 125–142. https://doi.org/10.59890/ijmbi.v1i2.238

Firmansyah, D., Wahdiniwaty, R., & Budiarti, I. (2023). Entrepreneurial Performance Model: A Business Perspective in the Digital Economy Era. *Jurnal Bisnis, Manajemen, Dan Ekonomi*, *4*(2), 125–150. https://doi.org/10.47747/jbme.v4i2.110

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Gangwani, K. K., & Bhatia, M. S. (2024). The effect of market orientation and technology orientation on industry 4.0 technologies and market performance: Role of innovation capability. *Industrial Marketing Management*, *118*, 231–241. https://doi.org/https://doi.org/10.1016/j.indmarman.2024.03.004

García-Álvarez de Perea, J., Ramírez-García, C., & Del Cubo-Molina, A. (2019). Internationalization business models and patterns of SMEs and MNEs: A qualitative multi-case study in the agrifood sector. *Sustainability*, *11*(10), 2755. https://doi.org/10.3390/su11102755

Gault, F. (2023). The Oslo Manual and standards. In *Handbook of Innovation Indicators and Measurement* (pp. 12–17). Edward Elgar Publishing. https://doi.org/10.4337/9781800883024.00010

Gawer, A. (2022). Digital platforms and ecosystems: remarks on the dominant organizational forms of the digital age. *Innovation*, *24*(1), 110–124. https://doi.org/10.1080/14479338.2021.1965888

Gerards, R., van Wetten, S., & van Sambeek, C. (2021). New ways of working and intrapreneurial behaviour: the mediating role of transformational leadership and social interaction. *Review of Managerial Science*, *15*(7), 2075–2110. https://doi.org/10.1007/s11846-020-00412-1

Ghobakhloo, M., Iranmanesh, M., Grybauskas, A., Vilkas, M., & Petraitė, M. (2021). Industry 4.0, innovation, and sustainable development: A systematic review and a roadmap to sustainable innovation. *Business Strategy and the Environment*, *30*(8), 4237–4257. https://doi.org/10.1002/bse.2867

Gilch, P. M., & Sieweke, J. (2020). Recruiting digital talent: The strategic role of recruitment in organisations' digital transformation. *German Journal of Human Resource Management*, *35*(1), 53–82. https://doi.org/10.1177/2397002220952734

Gilch, P. M., & Sieweke, J. (2021). Recruiting digital talent: The strategic role of recruitment in organisations' digital transformation. *German Journal of Human Resource Management*, *35*(1), 53–82. https://doi.org/10.1177/2397002220952734

Gray, J., & Rumpe, B. (2017). Models for the digital transformation. *Software & Systems Modeling*, *16*(2), 307–308. https://doi.org/10.1007/s10270-017-0596-7

Guerra, J. M. M., Danvila-del-Valle, I., & Méndez-Suárez, M. (2023). The impact of digital transformation on talent management. *Technological Forecasting and Social Change*, *188*, 122291. https://doi.org/10.1016/j.techfore.2022.122291

Hair, J.F, Hult, G. T. ., Ringle, C. ., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling, PLS-SEM. *Sage. Thousand Oaks, CA*.

Hair, Joe F, Ringle, C. M., & Sarstedt, M. (2011a). PLSSEM: Indeed a Silver Bullet Journal of Marketing Theory and Practice, 19 (2) pages 139-152, doi: 10.2753. *MTP1069-6679190202*. https://doi.org/10.2753/MTP1069-6679190202. Hair, J. F., Ringle, C. M., & Sar

Hair, Joe F, Ringle, C. M., & Sarstedt, M. (2011b).

PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair, Joseph F, Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *An Introduction to Structural Equation Modeling BT - Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook* (J. F. Hair Jr., G. T. M. Hult, C. M. Ringle, M. Sarstedt, N. P. Danks, & S. Ray (eds.); pp. 1–29). Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7_1

Hair, Joseph F, Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, *46*(1–2), 1–12. https://doi.org/10.1016/j.lrp.2013.01.001

Hair, Joseph F, Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, Joseph F, Sarstedt, M., & Ringle, C. M. (2019). Rethinking some of the rethinking of partial least squares. *European Journal of Marketing*, *53*(4), 566–584. https://doi.org/10.1108/EJM-10-2018-0665

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.

Hamilton, R. H., & Davison, H. K. (2018). The search for skills: Knowledge stars and innovation in the hiring process. *Business Horizons*, *61*(3), 409–419. https://doi.org/https://doi.org/10.1016/j.bushor.2018.01.006

Haverkort, B. R., & Zimmermann, A. (2017). Smart industry: How ICT will change the game! *IEEE Internet Computing*, *21*(1), 8–10. https://doi.org/10.1109/MIC.2017.22

Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, *116*(1), 2–20. https://doi.org/10.1108/IMDS-09-2015-0382

Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*(4), 424. https://doi.org/10.1037/1082-989X.3.4.424

Huang, X., Zhang, S., Zhang, J., & Yang, K. (2023). Research on the impact of digital economy on Regional Green Technology Innovation: Moderating effect of digital talent Aggregation. *Environmental Science and Pollution Research*, *30*(29), 74409–74425. https://doi.org/10.1007/s11356-023-27279-5

Hutahayan, B. (2021). The relationships between market orientation, learning orientation, financial literacy, on the knowledge competence, innovation, and performance of small and medium textile industries in Java and Bali. *Asia Pacific Management Review*, *26*(1), 39–46. https://doi.org/10.1016/j.apmrv.2020.07.001

Jeansson, J., & Bredmar, K. (2019). Digital transformation of SMEs: Capturing complexity. *32nd Bled EConference: Humanizing Technology for a Sustainable Society, Bled, Slovenia, June 16-19, 2019*, 523–541. https://doi.org/https://aisel.aisnet.org/bled2019/33

Karaboga, T., Gurol, Y. D., Binici, C. M., & Pınar, S. (2020). Sustainable digital talent ecosystem in the new era: impacts on businesses, governments and universities. *Istanbul Business Research*, *49*(2), 360–379. https://doi.org/10.26650/ibr.2020.49.0009

Kaur, S., & Kaur, G. (2021). Understanding the impact of human resource practices on employee competencies: evidence from Indian food processing industry. *Employee Relations: The International Journal*, *43*(5), 957–978. https://doi.org/10.1108/ER-05-2020-0216

Khalique, F., Khan, N., Hasan, F. Q., Khajuria, G., & Saini, K. (2023). Human Capital Management for Individual and Organisational Performance: Theoretical Perspective. *Journal of Informatics Education and Research*, *3*(2). https://doi.org/10.52783/jier.v3i2.369

Khan, G. F., Sarstedt, M., Shiau, W.-L., Hair, J. F., Ringle, C. M., & Fritze, M. P. (2019). Methodological research on partial least

squares structural equation modeling (PLS-SEM). *Internet Research*, *29*(3), 407–429. https://doi.org/10.1108/IntR-12-2017-0509

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of E-Collaboration (Ijec)*, *11*(4), 1–10. https://doi.org/10.4018/ijec.2015100101

Kock, N. (2017). WarpPLS user manual: Version 6.0. *ScriptWarp Systems: Laredo, TX, USA*, *141*, 47–60. Retrieved from https://scriptwarp.com/warppls/UserManual_v_8_0.pdf

Kock, N., & Lynn, G. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, *13*(7). Available at SSRN: https://ssrn.com/abstract=2152644

Kolbe, D., Frasquet, M., & Calderon, H. (2022). The role of market orientation and innovation capability in export performance of small- and medium-sized enterprises: a Latin American perspective. *Multinational Business Review*, *30*(2), 289–312. https://doi.org/10.1108/MBR-10-2020-0202

Lanzolla, G., Pesce, D., & Tucci, C. L. (2021). The digital transformation of search and recombination in the innovation function: Tensions and an integrative framework. *Journal of Product Innovation Management*, *38*(1), 90–113. https://doi.org/10.1111/jpim.12546

Leão, P., & da Silva, M. M. (2021). Impacts of digital transformation on firms' competitive advantages: A systematic literature review. *Strategic Change*, *30*(5), 421–441. https://doi.org/10.1002/jsc.2459

Leskina, E. I., Altukhov, P. L., Nozhkina, E. B., Mavlyutova, G. A., Predeus, Y. V, & Troekurov, P. S. (2022). Digital Talent Management For Human Capital Development. *European Proceedings of Social and Behavioural Sciences*. https://doi.org/10.15405/epsbs.2022.01.62

Li, F. (2020a). The digital transformation of business models in the creative industries: A holistic framework and emerging trends. *Technovation*, *92*, 102012. https://doi.org/10.1016/j.technovation.2017.12.004

Li, F. (2020b). Leading digital transformation: three emerging approaches for managing the transition. *International Journal of Operations & Production Management*, *40*(6), 809–817. https://doi.org/10.1108/IJOPM-04-2020-0202

Li, X., Li, J., Yuan, C., Guo, S., & Wang, Z. (2022). *Digital Talents BT - Development Practice of Digital Business Environment in China* (X. Li, J. Li, C. Yuan, S. Guo, & Z. Wang (eds.); pp. 107–124). Springer Nature Singapore. https://doi.org/10.1007/978-981-16-8527-9_7

LIPI. (2020). *Membangkitkan UMKM di Masa Pandemi dengan Inovasi dan Teknologi*. Lembaga Ilmu Pengetahuan Indonesia. Retrieved from http://lipi.go.id/siaranpress/membangkitkan-umkm-di-masa-pandemi-dengan-inovasi-dan-teknologi/22212

Lohmöller, J.-B. (2013). *Latent variable path modeling with partial least squares*. Springer Science & Business Media.

Midhat Ali, M., Qureshi, S. M., Memon, M. S., Mari, S. I., & Ramzan, M. B. (2021). Competency Framework Development for Effective Human Resource Management. *Sage Open*, *11*(2), 21582440211006124. https://doi.org/10.1177/21582440211006124

Mihret Dessie, W., & Shumetie Ademe, A. (2017). Training for creativity and innovation in small enterprises in Ethiopia. *International Journal of Training and Development*, *21*(3), 224–234. https://doi.org/https://doi.org/10.1111/ijtd.12107

Minbaeva, D. (2021). Disrupted HR? *Human Resource Management Review*, *31*(4), 100820. https://doi.org/10.1016/j.hrmr.2020.100820

Morze, N. V, & Strutynska, O. V. (2021). Digital transformation in society: key aspects for model development. *Journal of Physics: Conference Series*, *1946*(1), 12021. https://doi.org/10.1088/1742-6596/1946/1/012021

Nadkarni, S., & Prügl, R. (2021). Digital transformation: a review, synthesis and opportunities for future research. *Management Review Quarterly*, *71*(2), 233–341. https://doi.org/10.1007/s11301-020-

00185-7

Nair, K. (2019). Overcoming today's digital talent gap in organizations worldwide. *Development and Learning in Organizations: An International Journal*, *33*(6), 16–18. https://doi.org/10.1108/DLO-02-2019-0044

Ndubisi, N. O., Dayan, M., Yeniaras, V., & Al-hawari, M. (2020). The effects of complementarity of knowledge and capabilities on joint innovation capabilities and service innovation: The role of competitive intensity and demand uncertainty. *Industrial Marketing Management*, *89*, 196–208. https://doi.org/https://doi.org/10.1016/j.indmarman.2019.05.011

Nunnally, J. C. (1978). *Psychometric theory, New York: McGraw-Hill Book company*. New York: McGraw-Hill.

Obeidat, U., Obeidat, B., Alrowwad, A., Alshurideh, M., Masadeh, R., & Abuhashesh, M. (2021). The effect of intellectual capital on competitive advantage: The mediating role of innovation. *Management Science Letters*, *11*(4), 1331–1344. https://doi.org/10.5267/j.msl.2020.11.006

Osano, H. M. (2023). Global scaling by SMEs: Role of innovation and technology. *Journal of the International Council for Small Business*, *4*(3), 258–281. https://doi.org/10.1080/26437015.2023.2201896

Patky, J., & Pandey, S. K. (2020). Does Flexibility in Human Resource Practices Increase Innovation? Mediating Role of Intellectual Capital. *South Asian Journal of Human Resources Management*, *7*(2), 257–275. https://doi.org/10.1177/2322093720934243

Porter, M. E., & Stern, S. (1999). *New challenge to America's prosperity*. Council on competitiveness.

Reis, J., Amorim, M., Melão, N., & Matos, P. (2018). *Digital Transformation: A Literature Review and Guidelines for Future Research BT - Trends and Advances in Information Systems and Technologies* (Á. Rocha, H. Adeli, L. P. Reis, & S. Costanzo (eds.); pp. 411–421). Springer International Publishing.

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, *31*(12), 1617–1643. https://doi.org/10.1080/09585192.2017.1416655

Ringle, C. M., Sarstedt, M., Sinkovics, N., & Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief*, *48*, 109074. https://doi.org/https://doi.org/10.1016/j.dib.2023.109074

Saarikko, T., Westergren, U. H., & Blomquist, T. (2020). Digital transformation: Five recommendations for the digitally conscious firm. *Business Horizons*, *63*(6), 825–839. https://doi.org/https://doi.org/10.1016/j.bushor.2020.07.005

Schallmo, D., Williams, C. A., & Boardman, L. (2017). Digital transformation of business models—best practice, enablers, and roadmap. *International Journal of Innovation Management*, *21*(08), 1740014. https://doi.org/https://doi.org/10.1142/S1363919617400140X

Siek, N. (2022). *Academic management strategies of secondary schools in Cambodia based on the concept of innovation leadership skills*. https://doi.org/10.58837/CHULA.THE.2022.122

Smirnova, A. M., Zaychenko, I. M., & Bagaeva, I. V. (2019). *Formation of requirements for human resources in the conditions of digital transformation of business BT - Proceedings of the International Conference on Digital Technologies in Logistics and Infrastructure (ICDTLI 2019)*. 280–285. https://doi.org/10.2991/icdtli-19.2019.50

Stankovic, J. J., Marjanovic, I., Drezgic, S., & Popovic, Z. (2021). The digital competitiveness of European countries: a multiple-criteria approach. *Journal of Competitiveness*, *13*(2), 117. https://doi.org/10.7441/joc.2021.02.07

Stopochkin, A., Sytnik, I., Wielki, J., & Karaś, E. (2022). Transformation of the Concept of Talent Management in the Era of the Fourth Industrial Revolution as the Basis for Sustainable Development. *Sustainability*, *14*(14), 8727. https://doi.org/10.3390/su14148727

Taques, F. H., López, M. G., Basso, L. F., & Areal, N. (2021). Indicators used to measure service innovation and manufacturing innovation. *Journal of Innovation & Knowledge*, *6*(1), 11–26. https://doi.org/https://doi.org/10.1016/j.jik.2019.12.001

Tosoni, I. (2019). *Innovation Capacity and the City: The Enabling Role of Design*. Springer Nature. https://doi.org/10.1007/978-3-030-00123-0

Vial, G. (2021). Understanding digital transformation: A review and a research agenda. In *Managing Digital Transformation* (1st ed., pp. 13–66). Routledge.

Wahdiniwaty, R., Firmansyah, D., Suryana, A., Dede, D., & Rifa'i, A. A. (2022). Mystery in Marketing Management Products Post COVID-19 as a Model of Survival Strategy Towards the Awakening of Micro Small and Medium Enterprises (MSMEs) in the Digital Economy Era. *Khazanah Sosial*, *4*(1), 187–210. https://doi.org/10.15575/ks.v4i1.17397

Wang, C., & Hu, Q. (2020). Knowledge sharing in supply chain networks: Effects of collaborative innovation activities and capability on innovation performance. *Technovation*, *94–95*, 102010. https://doi.org/https://doi.org/10.1016/j.technovation.2017.12.002

World Intelektual Property Organization. (2021). *Global Innovation Index 2021: Tracking Innovation Trought The COVID-19 Crisis* (14th ed.). World Intellectual Property Organization. Geneva: Switzerland. https://doi.org/10.34667/tind.44315

Zastempowski, M. (2022). What Shapes Innovation Capability in Micro-Enterprises? New-to-the-Market Product and Process Perspective. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(1), 59. https://doi.org/https://doi.org/10.3390/joitmc8010059

Zhang, J., & Chen, Z. (2023). Exploring Human Resource Management Digital Transformation in the Digital Age. *Journal of the Knowledge Economy*. https://doi.org/10.1007/s13132-023-01214-y

Zhang, X., Xu, Y., & Ma, L. (2022). Research on successful factors and influencing mechanisms of the digital transformation in SMEs. *Sustainability*, *14*(5), 2549. https://doi.org/10.3390/su14052549

ABOUT THE AUTHORS

Isniar Budiarti, email: isniar.budiarti@email.unikom.ac.id (Corresponding Author)

Dr. Isniar Budiarti, SE., M.Si. works as a permanent lecturer Department of Doctoral Science Management, Postgraduate Faculty, at the Computer Indonesia University, Bandung. She holds a PhD of Management Science from the Padjadjaran University Bandung, West Java, Indonesia. The research fields studied include Management, Human Resource Management, Organizational Management, Strategic Management, and Organizational Performance. Currently active in the Directorate of Academic Development and Learning Data Resources.

Dr. Deri Firmansyah, S.E., M.M. PhD graduated from Universitas Pendidikan Indonesia (UPI) Bandung, West Java, Indonesia. Lecturer at the Sekolah Tinggi Ilmu Ekonomi (STIE) PASIM Sukabumi, West Java-Indonesia, in the Department of Management. Research areas include Human Resource Management, Marketing Management, Management Accounting, Entrepreneurship, Economic Education, Statistics and Research Methods.