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Improving The Urban Competency In North Jakarta Indonesia Through The Fourth Industrial Revolution Strategy

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Abstract
The aim of this research is the strategy to increase the competence of North Jakarta urban communities facing the Industrial Revolution 4.0 era through education and training on adaptability and work ability, especially in the Cilincing sub-district area. Researchers conducted a survey of respondents, in this case the North Jakarta Urban Community, with a sample of 400 people. The data analysis technique uses Partial Least Square. The research results show that education and training influence the competence of urban communities through adaptability and work ability in the era of the industrial revolution 4.0. The ability to tolerate and match education will increase future work targets through the ability to carry out tasks and work behavior changes completely with new innovations
Keyword *: education, training, Industrial Revolution* 4.0

INTRODUCTION

Human capital is treated as one of the most important factors in economic development (Laptev et al., 2020) (Minhaj & Ahmed, 2023) . Providing efficiency to human resources to achieve their goals and self-development to improve performance (Sahputri et al., 2023) (Basu, 2024) . Human resource management is related to the knowledge, skills and capacity for innovative development possessed by people in the organization and the added value they provide, so that it requires being able to adapt quickly to various cultural and behavioral changes in the industrial society environment, so that the qualifications It requires multi-talented and multi-disciplinary knowledge (Melania et al., 2024) (Agustian et al., 2023)

Technological advances have placed tremendous pressure on business organizations to change (Verhoef et al., 2021) (Perifanis & Kitsios, 2023) (Kraus et al., 2021) . The industrial revolution 4.0, which leads to digital transformation and produces high productivity at low costs, brings a lifestyle to create an overall sustainable environment (Javaid et al., 2022) (Yaqub & Alsabban, 2023) . The industrial revolution 4.0 has had a big impact on society, especially in the job market, but demands high work competency, making it a challenge for the world of training. (M. Amin et al., 2023) (Spöttl & Windelband, 2021) (Mudzar & Chew, 2022) (Li, 2022) . A significant technological disparity exists between the present state of the industrial world and the anticipated state of affairs following the industrial revolution. 4.0 (Miah et al., 2024) (Widiastuti & Mirnawati, 2020) in the form of highly qualified specialists with the right knowledge and logical thinking will be needed in the job market.

personal skills which include adaptability and *work ability* which are thought to be the ability to survive all forms of change that occur (Othman et al., 2022) (*Davidescu* et al., 2020) , the company's decision to adopt industrial technology 4.0 then employees are given training and skills development, so employees can adopt industry 4.0 technology. Change requires the readiness of all parties, especially the readiness of all employees (Jannah, 2024) (Javaid et al., 2022) . Competency-based assessments are increasingly gaining attention in business and professional organizations because they determine the success of individuals in performing or demonstrating the skills, knowledge, behavior and abilities needed in the workplace (Staškevič̆a, 2019) (Wong, 2020) .

Technology adoption and training a workforce with the right competencies are among the challenges companies must overcome to properly implement Industry 4.0. (In Sabato & Savov, 2023) . adaptability *and work* ability which is thought to be the ability to survive all forms of change that occur. (In Sabato & Savov, 2023) (Leesakul et al., 2022) . Urbanization is basically able to reduce global poverty. (Ha et al., 2021a) (Kuddus et al., 2020) . The technological divide between the present state of the industrial world and the anticipated state of affairs under the fourth industrial revolution is considerable, including in the areas of education and training. (Ellitan, 2020) (Miah et al., 2024)

The impact of the industrial revolution 4.0 era is occurring in all fields quickly. The gap that emerged in the turmoil of the industrial revolution 4.0 was urbanization, people moved to urban areas to work as factory workers so that agriculture and animal husbandry were no longer the basis for people to improve their standard of living. (Amin et al., 2023) (Sardjono et al., 2020) (Hermawan, 2021) . Urbanization is basically able to reduce global poverty (Ha et al., 2021a) (Silva-Laya et al., 2020) . The impact of urbanization in developing countries is often seen as a positive thing because it is a sign of development to achieve progress. (Aunal et al., 2023) (Sakketa, 2023)

The city of North Jakarta is an attraction for immigrants who are struggling to earn a living. Most urban residents have to work for other people, namely as employees or workers. According to the North Jakarta Central Statistics Agency (BPS), there are three main sectors that are driving North Jakarta's main source of economic growth. The three sectors are the processing industry sector (2.46%), the trade, hotel and restaurant sector (1.07%), and the transportation and communications sector (0.71%). Competing in the era of the 4th generation industrial revolution, Jakarta's urban communities need to increase their ability to develop competitive technological advantages. The Cilincing District and Koja District areas are the areas with the largest number of Urban People who work in Industry in the City of North Jakarta. Based on North Jakarta BPS data, there are more than 500,000 (five hundred thousand) residents in the productive age range of 15 – 64 years in these 2 (two) sub-districts.

Problems of poverty, unemployment due to layoffs. Factories closing, businesses switching to online traders, and employees being laid off have had an impact urban communities in North Jakarta who live on the poverty line. Starting from low educational background, living in slum settlements, there is a gap in access to information through digital technology. The demands of life are tough, people must have the ability *to* work , adapt (*adaptability*), seek the latest information in technology, this is what must be faced. To get a decent living, urban residents of Jakarta try to make every effort, namely increasing competence in the form of training and developing personal skills, as well as trying to adapt to the acceleration of technology. The challenges are getting tougher, digital transformation, automation and artificial intelligence seem to be threatening human power, and the decline in economic capacity to absorb labor has an impact on unemployment and poverty rates.

The aim of this research is the Strategy for increasing the competency of North Jakarta urban communities facing the Industrial Revolution 4.0 era through education and training on *adaptability* and *work ability* , especially in the Cilincing sub-district area,

LITERATURE REVIEW

Industrial Revolution

The fourth industrial revolution is reshaping social, technological, and business paradigms. These factors influence the conduct of international commerce. Digitalisation facilitates the revision of antiquated business and trade practices. (Javaid et al., 2024) (Ashar, 2020)

The process of digitisation presents nations with numerous prospects to establish paperless trading platforms and reduce trade costs. Nonetheless, nations are required to collaborate on matters pertaining to, among other things, the cross-border transfer of information, privacy concerns, and competitive landscapes. (Chen & Gao, 2022) (Lee & Seo, 2024)

The majority of countries have implemented trade facilitation policies as a means to enhance transparency, streamline and expedite advantages, and establish appropriate institutional structures. It is still uncommon knowledge that digital trading is the component of international commerce that has expanded at the most rapid rate over the last decade. (Turnes & Ernst, 2020) . Nations must continue to implement contemporary ICTs and advance frictionless trade in order to expedite trade procedures, enable electronic data exchange, and facilitate communication with all stakeholders in the global supply chain (Javaid et al., 2024) . This cross-border commerce has the potential to significantly reduce trade expenses and expand commerce among international integration organisations. The adoption of international standards, harmonisation of legal frameworks, discrepancies in stakeholder capabilities (including human resources and infrastructure), competition between the public and private sectors, and absence of intergovernmental cooperation are all factors to consider (Melo, 2020)

HR Competency

Competence refers to an individual's aptitude for performing a task accurately and with exceptional quality, encompassing knowledge, abilities, and attitude (Garavan & Mcguire, 2021) (Aris, 2024) . Competency comprises the knowledge, abilities, skills, attitudes, values, conduct, and qualities required to perform specific tasks with the highest degree of success (Salman et al., 2020) . Competence is knowledge, expertise and ability to carry out certain cognitive, affectional and psychomotor behavioral performances (Sönmez, 2020) . Competence is a basic characteristic indicating a way of behaving or thinking, equalizing a situation, and supporting it for a long period of time (Setyaasih et al., 2023) . The concept of competency is centered on ability or capability, which in turn focuses attention on the attributes that make up that ability or capability. (Škrinjarić, 2022)

Education

Education plays an important role in shaping individuals and society, equipping them with the knowledge, skills and values necessary for personal growth and societal progress (Nweke, 2023) Higher education is evolving in response to changes in society and industry and provides valuable human resources to organizations. (Mishra & Painoli, 2023) . Skills that must be possessed in Era 4.0 include: *leadership* , *digital literacy* , *communication* , *emotional intelligence* , *entrepreneurship* , *global citizenship* , *problem solving* , and *team-working* (Sabaruddin, 2023)

Training

Training plays a major role in increasing organizational productivity, which provides organizations with a competitive advantage (Arulsamy et al., 2023) . Job training is important for companies because it can form an expert and skilled workforce, increase work efficiency and effectiveness, increase work productivity, improve the quality of work results and increase company profits. (Mogea, 2023) . Job training will make employees have the skills and knowledge to do certain jobs, increase productivity and increase self-confidence. (Laily et al., 2024) . Training allows employees to refine skills and competencies, acquire new skills, and increase their understanding of organizational goals and policies, which reduces the cost of hiring new employees, increases managers' ability to monitor progress, training effectiveness, and find areas that require more attention or improvement . (Elnaga & Imran, 2013) . (Agrawal et al., 2020) explained that the increasing importance of training that is rich in digital content with high technology will make employees ready to face changes in the industrial era 4.0.

Adaptability

Adaptability is a leadership skill, especially as major changes emerge globally and impact the workforce and industry, with changes occurring in AI, to create new tools and workflows at breakneck speed. (Uhl-Bien & Arena, 2020) . Work mechanisms, opportunities, threats and challenges for leaders and how to use them effectively to increase the amount of work and reduce costs while improving workforce skills. (Dabić et al., 2023) (Knight et al., 2019) . Adaptability expands the capacity to handle change, no matter how difficult it is (Ramesh et al., 2023) . Adaptability is a person's ability to respond to change and adapt to changes in their environment (Kodden, 2020) . adaptability as “an individual's ability, skill, disposition, willingness, and/or

motivation, to change or adapt to various tasks, social features, and the environment". (Hamtiaux et al., 2023) (Zhang et al., 2021) . multi-dimensional work Resource-based adaptability for individuals: *Cognitive Adaptability, Affective Adaptability, Behavioral adaptability* (Ridho, 2023) .

Work Ability

work abilities can be innate traits or abilities learned by an employee to support an employee in carrying out mental or physical work (Purwaningtyas et al., 2024) . The physical work environment comprises various factors that influence work efficiency. These factors include the layout of the workplace, illumination conditions, humidity levels, acoustics, and security measures (Rahmi & Wibowo, 2019) . Non-physical work environment conditions encompass work-related activities, including the capacity to establish communication and collaborate with superiors and colleagues, as well as cultivate harmonious relationships. (Suharmono & Putra, 2024) The work environment comprises everything in the vicinity of employees that has the potential to impact their job satisfaction and efficiency in producing optimal results. This workplace environment facilitates task completion and the production of peak performance to a significant degree. (López-Cabarcos et al., 2022) . The optimisation of employee performance is significantly influenced by the quality of the work environment, given that the environment serves as the setting in which tasks are executed. A conducive work environment fosters employee motivation and engagement in order to enhance performance through the development of a comfortable atmosphere in the immediate surroundings. It is imperative for organisations to establish conducive environments that foster effective collaboration among all members. Achieving a family environment, effective communication, and exercising self-control are essential prerequisites. The correlation between the work environment and employee behaviour and attitudes can be attributed to psychological factors, including tedium, fatigue, and repetitive tasks. (Kamila & Muafi, 2023)

Framework of thinking

Education on *Adaptability*

The field of education during the industrial revolution 4.0 through the enhancement of human resource capabilities, the incorporation of technological advancements into the learning process, and the improvement of educator competence and skills (Lase, 2019) . Adaptation to digital transformation and Industry 4.0, which play an important role in today's knowledge economy, can only be achieved through higher education. (Katyeudo & de Souza, 2022) . All this industrial revolution only affected production, the labor market and the education system so that only qualified and highly educated employees could control technology (Beacock et al., 2020) . Competencies determine future professional work and must be adapted effectively when entering the world of work . (Das & Chandrasekaran, 2024) . Adaptability in education can be facilitated at the individual, community, state, and global levels, by drawing attention to the critical need to pool risk and responsibility. (Spiel et al., 2020) . *Adaptability* , the resolution of these intricate challenges will primarily rely on employees' capacity for innovative problem solving, as a consequence of the integration of Industry 4.0 (Sony & Mekoth, 2022) . Learning adaptability has been shown to have a major theoretical influence on student learning outcomes and choices of subsequent educational opportunities (White, 2020)

H_1 = There is a direct influence of education on *adaptability*

Education on *Work ability*

(Kasimbara et al., 2024) Education influences employees' work abilities because the higher the level of education achieved, the more knowledge that can be applied when working in an agency. (Saad, 2022) work ability can be improved through regular coaching and development of employees . (Nevala et al., 2022) Employability is influenced by educational programs through several factors related to personal abilities, motivation and opportunities provided by networks. These results can guide future educational programs and policy decisions regarding skills and professional needs. (Amhar et al., 2022) Work ability is greatly influenced

by skills, level of education and insight because with high skills the quality of work will be better. A concise educational process that employs structured and methodical procedures to impart technical knowledge and skills to non-managerial personnel with a particular objective in mind. (Ehlers & Eigbrecht, 2024)

H $_2$ = There is a direct influence of education on *work ability*

Training on *Adaptability*

(Amin et al., 2024) the company's decision to adopt industry 4.0 technology then employees are given training and skills development, (Arulsamy et al., 2023) change-oriented training can help equip employees who need knowledge and skills. Employees who learn these skills will quickly adapt i. (Hernandez-de-Menendez et al., 2020) Adopting technology and training the workforce to have the right competencies are challenges that companies must overcome to implement Industry 4.0 correctly. Companies must consider human resources acquiring new competencies and have training programs that develop employee competencies. (Alzahmi & Alshamsi, 2024) . (Sony & Mekoth, 2022) Implementation of Industry 4.0 with accomplishment. The six dimensions encompassed within Industry 4.0 are as follows: interpersonal adaptation, adaptability to confront crises and unanticipated situations, creative problem solving, learning, training, and continuing education, stress management, and team adaptability. By utilising these constructs, a conceptual model of employee adaptability is constructed. Students will find it easier to start a career according to their career choice after completing their studies. This program will help students identify their career options and adapt to them. (Hadiyati & Astuti, 2023) (Yulianti et al., 2023)

H $_3$ = There is a direct influence of training on *adaptability*

Training on *Work Ability*

forms of work, work methods, work routines and performance strategies at cooperative, competency-based and autonomous learning centers to ensure continued *work ability* (Kraiger & Ford, 2021) . Organizations invest in training, employees can improve their performance, so change-oriented training can help employees who need knowledge and skills (Arulsamy et al., 2023) . industrial training to improve graduates' employability . (Isbah et al., 2023)

H $_4$ = There is a direct influence of training on *work ability*

***Adaptability* to Urban Community Competencies in the Industrial Revolution 4.0 era**

Employees must possess adaptability and innovative problem-solving skills above all else in order to resolve the complex issues that arise from the implementation of Industry 4.0 (Singh et al., 2022) . (Sony & Mekoth, 2022) This study investigates, via a systematic review of the literature, six employee-adaptable dimensions for the effective implementation of Industry 4.0. By utilising these constructs, a conceptual model of employee adaptability is constructed. (Moraes et al., 2023) Leadership, knowledge of strategic vision, self-organization, the ability to give and receive feedback, proactivity, creativity, problem-solving, interdisciplinary, teamwork, collaborative work, initiative, communication, innovation, adaptability, flexibility, and independent management are among the primary competencies identified in this conceptual map. Additionally, knowledge of contemporary fields, such as information and communication technology, is required, (Wulandari, 2021) To face the era of industrial revolution 4.0, government in this case ASN is required to have competence and ability so that they are able to adapt with technological advances in the digital era

H5 = There is a direct influence of Adaptability on Urban Community Competence

***WorkAbility* towards Urban Community Competencies in the Industrial Revolution 4.0 era**

(Jia et al., 2019) confronting competition during the industrial revolution 4. The ability of an individual is necessary to perform a variety of job-related duties. Employees' abilities may manifest as interests and talents; by utilising these aptitudes, they are capable of efficiently accomplishing tasks with optimal outcomes. (Nasruddin et al., 2020) employee work ability is very important to make it easier for companies to complete planning well and according to objectives. (Wahyudin et al., 2021) A person has general work ability if he has physical, mental and social health, basic competency standards including basic generic competencies, and several

sets of basic job priorities needed to do several types of work. (Hastari et al., 2021) Work ability demonstrates a person's capacity to perform himself in a variety of work-related duties. (Edú-valsania et al., 2022) Each employee ought to be afforded the chance to cultivate their skills and talents and contribute them to the growth of the organisation in which they are employed.
H6 = There is a direct influence of Work Ability on urban community competency

7. Education for Urban Community Competencies in the Industrial Revolution 4.0 era

According to (Lase, 2019) , the advent of Industry 4.0 shifts the function of human labour from primary to auxiliary in the production system, necessitating the development of novel proficiencies in digital, technical, interdisciplinary, collaborative, and communicative aspects. (Hadijah & Sadali, 2020) said that in their research the influence of urbanization on reducing poverty in Indonesia stated that the Government needs to improve the quality of human resources through education, health and social protection. (Tuegeh et al., 2021) the impact of the industrial revolution 4.0 on the labor market on higher education. found the challenges of Industry 4.0 in the job market in Indonesia in the form of educational competencies and skills. (Wibowo et al., 2020) The competency gap is a weak point for an employee to overcome the challenges of Industry 4.0 in the form of a qualification strategy consisting of: different methods and techniques, such as training and education, to build special competencies. (Ras et al., 2020) All industries must have competitive and comparative advantages at the same time to provide an impact on workforce preparation with certain criteria and needs. Integration in Industry 4.0, employees must learn, train, educate themselves in a variety of skills. (Sony & Mekoth, 2022) education plays an important role in ensuring the skills readiness of the workforce. General education and vocational education have an important role in preparing the industrial workforce .
H7 = There is a direct influence of education on the competence of urban society in the era of the Industrial Revolution 4.0

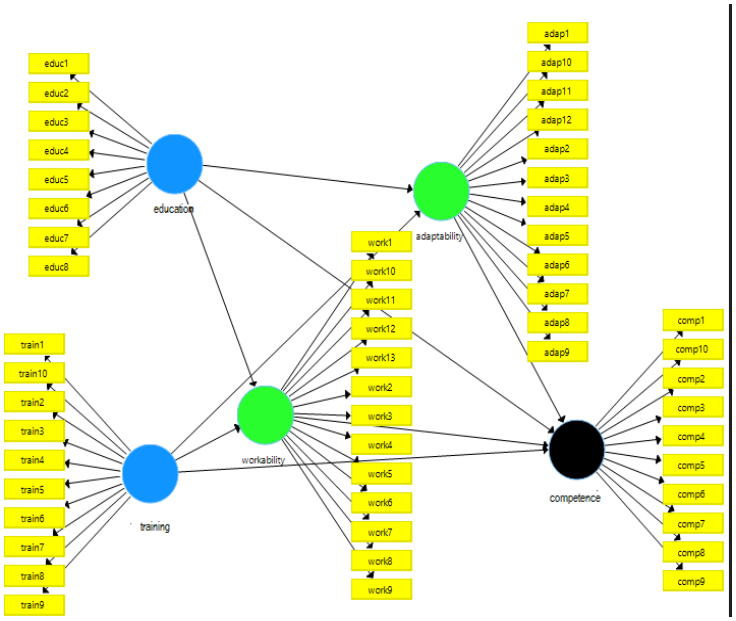
8. Training for Urban Community Competencies in the Era of the Industrial Revolution 4.0, the Era of the Industrial Revolution 4.0

(Shevyakova et al., 2022) In organisations, ongoing and introductory vocational training must be tailored to Industry 4.0 standards, with an emphasis on credentials. Innovative digital techniques provide efficient entry sites for this. Furthermore, it is critical to modify the framework conditions and organisational and work processes. Change management must be considered from the outset. (Szabó et al., 2023) The progressive transformation of the labour market, which results in the digitisation of employment and the demand for new professional skills, is an effect of Industry 4.0. In conclusion, early identification of future competency requirements enables the implementation of training initiatives designed to equip personnel with newfound proficiencies. (Mustapha, 2020) job skills training programs are an important strategy to improve workforce skills and minimize unemployment in Malaysia. Improvement strategies for urban communities working in the private sector in the form of contemporary trends in training practices and human resource development. (Afida, 2022) industrial training is considered an effective tool for improving graduates' employability. The results show a satisfactory level of student performance during the training..

RESEARCH METHODS

The design of this research is to analyze strategies for increasing the competency of North Jakarta urban communities facing the Industrial Revolution 4.0 era through education and training on *adaptability* and *work ability,* especially in the Cilincing sub-district area ,
This category of investigation employs a hybrid methods research approach. Mixed Methods Research, also known as such, is an approach to data collection and analysis that combines qualitative and quantitative research methods over the course of multiple research phases. By combining the two types of data, a comprehensive analysis can be obtained (Ishtiaq, 2019) .

Researchers conducted a survey of respondents who in this case were the North Jakarta Urban Community and also sources from the mayor of North Jakarta, the North Jakarta education department, as well as educational institutions and companies in the North Jakarta area. Total population of North Jakarta Urban Community 78,773 people, so a sample of 400 people was obtained. The data analysis method uses Partial Least Square



RESULTS AND DISCUSSION

This research analyzes the strategy for increasing the competency of North Jakarta urban communities facing the Industrial Revolution 4.0 era through education and training on *adaptability* and *work ability*, especially in the Cilincing sub-district area.

Analysis of Results

Outer loading table

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Mean	Standard Error
adap1 <- adaptability	1,000			**4,015**	0.042
comp1 <- competency	0.856	51,459	0,000	4,095	0.044
comp10 <- competency	0.854	49,885	0,000	3,910	0.045
comp2 <- competency	0.824	25,445	0,000	**4,173**	0.039
comp4 <- competency	0.737	29,150	0,000	3,740	0.047
comp5 <- competency	0.794	34,936	0,000	3,893	0.045
comp6 <- competency	0.837	45,754	0,000	4,015	0.040
comp7 <- competency	0.860	51,271	0,000	3,865	0.044
comp8 <- competency	0.728	22,143	0,000	4,005	0.035
comp9 <- competency	0.813	37,298	0,000	3,805	0.050
educ1 <- education	0.809	33,353	0,000	3,945	0.035
educ2 <- education	0.749	29,978	0,000	4,013	0.038
educ3 <- education	0.796	23,500	0,000	**4,258**	0.037
educ4 <- education	0.841	44,593	0,000	4,160	0.046
educ5 <- education	0.742	19,508	0,000	3,990	0.045

educ6 <- education	0.759	16,560	0,000	4,068	0.033
train6 <- training	0.775	27,113	0,000	**3,930**	0.039
train8 <- training	0.875	71,581	0,000	3,778	0.048
train9 <- training	0.829	30,628	0,000	3,795	0.040
work1 <- workability	0.751	23,986	0,000	3,960	0.038
work10 <- workability	0.816	30,324	0,000	3,875	0.038
work13 <- workability	0.803	33,656	0,000	4,005	0.039
work4 <- workability	0.732	20,053	0,000	**4,100**	0.038
work6 <- workability	0.774	26,546	0,000	3,953	0.047
work7 <- workability	0.787	33,473	0,000	3,878	0.042
work8 <- workability	0.796	27,442	0,000	3,905	0.039

Based on the outer loading table, it shows that the original sample value for each indicator is greater than 0.7 and the p value is less than 0.05 so it is valid. The biggest response from respondents for adaptability is Work behavior has changed completely with new innovations amounting to 4,015, competency is having future work targets 4, 173, Education is Tolerance is 4,258, training is in accordance with education is 3,930, work ability is Able to carry out tasks with full responsibility is 4,100

Construct Reliability and Validity Table

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
adaptability	1,000	1,000	1,000
competence	0.935	0.946	0.661
training	0.768	0.867	0.685
education	0.875	0.905	0.614
workability	0.893	0.916	0.609

Based on the Construct Reliability and Validity table, it shows that the Cronbach's Alpha, Composite Reliability and Average Variance Extracted (AVE) values are greater than 0.6 so they are valid and reliable.

	R Square
adaptability	0.209
competence	0.690
workability	0.496

The R square value shows the strength of the research model which is influenced by the independent variables. The R square value for **adaptability is** 0.209, **competency is** 0.690, **work ability is** 0.496

Table Path Coefficients

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Results
education -> adaptability	0.297	4,012	0,000	Received H1
education -> workability	0.483	7,038	0,000	Received H2
training -> adaptability	0.220	4,585	0,000	Received H3
training -> workability	0.273	5,289	0,000	Received H4
adaptability -> competence	-0.049	1,435	0.152	Received H5

workability -> competence	0.086	1,270	0.205	**Received H6**
education -> competency	0.679	13,822	0,000	**Received H7**
training -> competency	0.194	3,652	0,000	**Received H8**

DISCUSSION ANALYSIS

1. The Influence of Education on *Adaptability*

The results of the research show that education has a positive effect on adaptability, resulting in cloudy opinions (Lase, 2019) (Katyeudo & de Souza, 2022) (Beacock et al., 2020) (Das & Chandrasekaran, 2024) (Spiel et al., 2020) (Sony & Mekoth, 2022) (White, 2020) . Adaptation to digital transformation and Industry 4.0, which play an important role in today's knowledge economy, can only be achieved through higher education. All this industrial revolution only affected production, the labor market and the education system so that only qualified and highly educated employees could control technology. Competencies determine future professional work and must be adapted effectively when entering the world of work. *Adaptability* , creative problem solving abilities will be the most important thing for employees to solve these complex problems due to the implementation of Industry 4.0. Learning adaptability has been shown to have a major theoretical influence on students' learning outcomes and choice of subsequent educational opportunities

2. The influence of education on *work ability*

The research results show that education has a positive effect on work ability, thus supporting the opinion (Kasimbara et al., 2024) (Saad, 2022) (Nevala et al., 2022) (Amhar et al., 2022) (Ehlers & Eigbrecht, 2024) . Work ability can be improved through regular coaching and development of employees . Employability is influenced by educational programs through several factors related to personal abilities, motivation and opportunities provided by networks. Work ability is greatly influenced by skills, level of education and insight because with high skills the quality of work will be better. A short-term educational process that uses organized systematic procedures so that non-managerial workers learn technical knowledge and skills for a specific purpose.

3. Effect of Training on *Adaptability*

The research results show that training has a positive effect on adaptability, thus supporting the opinion (Amin et al., 2024) (Arulsamy et al., 2023) (Hernandez-de-Menendez et al., 2020) (Alzahmi & Alshamsi, 2024) (Sony & Mekoth, 2022) (Hadiyati & Astuti, 2023) (Yulianti et al., 2023) . Change-oriented training can help equip employees with the knowledge and skills they need. Companies must consider human resources acquiring new competencies and have training programs that develop employee competencies. Implementation success Industry 4.0, supported by employee adaptability, is built using this construct. Students will find it easier to start a career according to their career choice after completing their studies. This program will help students identify their career options and adapt to them.

4. Effect of Training on *Work Ability*

The research results show that training has a positive effect on work ability, thus supporting the opinion (Isbah et al., 2023) (Kraiger & Ford, 2021) (Arulsamy et al., 2023) . Organizations invest in training, employees can improve their performance, so change-oriented training can help employees who need knowledge and skills. Forms of work , work methods, work routines and performance strategies at cooperative, competency-based and autonomous learning centers to ensure continued *work ability* .

5. The Influence of *Adaptability* on Urban Community Competence in the Industrial Revolution 4.0 era

The research results show that *Adaptability* has no effect to Competency, so it does not support (Singh et al., 2022) (Sony & Mekoth, 2022) (Moraes et al., 2023) (Wulandari, 2021)

6 Influence *WorkAbility* towards Urban Community Competencies in the Industrial Revolution 4.0 era

The results showed that *work ability* had no effect to Competency, so it does not support (Jia et al., 2019) (Wahyudin et al., 2021) (Nasruddin et al., 2020) (Hastari et al., 2021) (Edú-valsania et al., 2022)

7. Education for Urban Community Competencies

The research results show that education has a positive effect on competence. So it supports (Lase, 2019) (Hadijah & Sadali, 2020) (Tuegeh et al., 2021) (Wibowo et al., 2020) (Ras et al., 2020) (Sony & Mekoth, 2022) . Industrial revolution 4.0 on the labor market on higher education. finding the challenges of Industry 4.0 in the job market in Indonesia. The evolving demands of Industry 4.0 necessitate that the competencies and proficiencies of higher education adapt accordingly. In summary, in order to surmount the obstacles posed by this extensive industrial transformation and sustain competitiveness on the international market, it is imperative that production personnel receive punctual training and continue their education. Employees contribute significantly to the achievement of an organization's objectives. The essential proficiencies demanded comprise the following: leadership, strategic foresight, knowledge, self-management, feedback exchange, proactivity, ingenuity, problem-solving, interdisciplinary collaboration, teamwork, flexibility, initiative, communication, innovation, adaptability, flexibility, and self-management; as well as current field expertise encompassing information and communications technology, automation, algorithms, data analysis, software development, and security.

8. Training for Urban Community Competencies in the Industrial Revolution Era 4.0

The research results show that training has a positive effect on competence (Shevyakova et al., 2022) (Mustapha, 2020) (Szabó et al., 2023) (Afida, 2022) . Urban communities need work readiness to face the world of work after completing their study program. Efforts to increase work readiness are carried out by providing training to increase work readiness consisting of future career planning, mapping work and life experiences , depth of professional knowledge and skills, general interpersonal skills, and emotional intelligence. In light of the extensive industrial transformation, it is imperative that production personnel receive timely training and continue their education to maintain their competitiveness on the global market. Employees contribute significantly to the achievement of an organization's objectives. The primary competencies that are essential comprise the following: leadership, strategic vision, knowledge, self-organization, feedback giving and receiving, proactivity, creativity, problem solving, interdisciplinary, teamwork, collaborative work, initiative, communication, innovation, adaptability, flexibility, and self-management; as well as current field expertise encompassing information and communications technology, automation, data analysis, algorithms, software development, and security.

CONCLUSIONS AND IMPLICATIONS

Conclusion

During the industrial revolution, the competence of urban communities was impacted by education and training in the areas of adaptability and work ability. 4.0. The ability to tolerate and match education will increase future work targets through the ability to carry out tasks and work behavior changes completely with new innovations

Implications

The advent of the fourth industrial revolution has significantly transformed perspectives on education. In order to effectively confront the educational challenges that arise in the era of the fourth industrial revolution, Indonesia must enhance the competencies and aptitudes of its workforce. Adaptation and renewal are necessary in every aspect of education in response to change, including curriculum development, educator professional development, and the integration of technology into the learning process. In order to prepare students for the era of the industrial revolution, it is imperative that the devised curriculum possesses the capacity to guide and shape them in the domains of Science, Technology, Engineering, and Mathematics (STEM). Curriculum development is refocused to incorporate ICT-based learning, the internet of things, big data, and computerisation in order to produce graduates capable of competing in the global era.

Employees play an important role in the growth and prosperity of a company. Employee motivation can be increased through employee empowerment, which involves involving employees in the decision-making process, fostering a shared relationship between employees and the organization, and giving them autonomy over their work. High employee engagement leads to higher levels of motivation and satisfaction. Providing opportunities for employees to integrate into the organizational community, delegating them more responsibility for the tasks assigned to them, and allowing them to make choices and decisions regarding their work are effective ways to engage employees and show that their input is valued. Adequate training programs and feedback processes must be in place to equip employees with the necessary skills and ensure their job satisfaction. Recognition for a job well done, opportunities for advancement and promotion, appropriate management styles, and effective coordination at all levels of the organization also contribute to increased employee motivation.

These discoveries will facilitate the achievement of Industry 4.0 by bolstering the knowledge foundation and competencies essential for the triumph of organisations. Human capital contributes to a company's competitive advantage. Therefore, it is essential to be able to impart the knowledge and abilities required for effective strategy implementation.

These findings aid senior management and human resources in recognising and identifying the appropriate skills that support decision-making regarding training and other interventions and the identification of voids in the current workforce. Ensuring a comprehensive mapping of these skills during the employee onboarding process is crucial, and these endeavours can facilitate the formulation of effective strategies encompassing both immediate and future plans to secure a competitive edge.

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