

Relationship Among Self-Efficacy, Digital Mindset, And Resilience Towards Work Readiness In Industry 4.0 Case Of: Bank Indonesia Scholarship Recipient In West Java

Defrina Dwifani¹✉ Achmad Fajar Hendarman²

Master of Science in Management, Bandung Institute of Technology

Abstrak

Perusahaan membutuhkan sumber daya manusia yang memiliki kompetensi yang memadai karena tenaga kerja merupakan aset yang paling menentukan dan menentukan keberhasilan suatu perusahaan dalam kegiatan ekonomi untuk mencapai dan menyeimbangkan suatu tujuan yang ingin dicapai. Namun, kenyataannya krisis produktivitas manusia masih terjadi hingga saat ini. Seperti yang terjadi di Jawa Barat, Indonesia, tingginya angkatan kerja, rendahnya kualitas pencari kerja, dan sulitnya distribusi karena terbatasnya lapangan pekerjaan mengakibatkan banyak pengangguran di Jawa Barat, Indonesia. Dalam situasi ini, mahasiswa sebagai calon tenaga kerja harus mempersiapkan diri untuk memiliki kesiapan kerja sesuai dengan kemampuan yang dibutuhkan di dunia kerja, khususnya di era revolusi industri 4.0. Penelitian ini menggunakan pendekatan kuantitatif untuk menemukan hubungan antara self-efficacy, digital mindset, dan resiliensi terhadap kesiapan kerja di Industri 4.0. Dengan demikian, hasil penelitian ini menyoroti hubungan yang signifikan dan positif di antara variabel-variabel tersebut.

Kata Kunci: *kesiapan kerja, industry 4.0, self-efficacy, digital mindset, resiliensi*

Abstract

Companies need human resources that have adequate competence because labour is the most crucial asset and determines a company's success in economic activity to reach and balance a goal to be achieved. However, the reality is that the crisis of human productivity still occurs today. As happened in West Java, Indonesia, the high labour force, low quality of job seekers, and difficulty in distributing them due to limited vacancies have resulted in many unemployed in West Java, Indonesia. In this situation, students as prospective workers must prepare themselves to have work readiness following the abilities needed in the world of work, especially in the era of the industrial revolution 4.0. This study uses a quantitative approach to find the relationship among self-efficacy, digital mindset, and resilience toward work readiness in Industry 4.0. Thus, this study's result highlighted a significant and positive relationship among those variables.

Keywords: *work readiness, industry 4.0, self-efficacy, digital mindset, resilience.*

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✉ Corresponding author :

Email Address : defrina_dwifani@sbm-itb.ac.id

INTRODUCTION

Globalization currently occurring in the era of the industrial revolution 4.0 today has a significant influence on economic development which has an impact on employment and workforce qualifications needed to achieve company goals. Companies need human resources that have adequate competence because labour is the most crucial asset and determines a company's success in economic activity to reach and balance a goal to be achieved (Paais & Pattiruhu, 2020). However, the reality is that the crisis of human productivity still occurs today. As happened in West Java, Indonesia, the high labour force, low quality of job seekers, and difficulty in distributing them due to limited vacancies have resulted in many unemployed in West Java, Indonesia. In this situation, students as prospective workers must prepare themselves to have work readiness following the abilities needed in the world of work, especially in the era of the industrial revolution 4.0. The era of the industrial revolution 4.0 has developed rapidly and has become a challenge for humans in global competition. Changes in world civilization are very fast in various countries, marked by the use of unlimited information systems based on computing and big data (Dito & Pujiastuti, 2021).

The changes brought about by the era of the industrial revolution 4.0 certainly impacted the job system, employee recruitment, recruitment process, and competencies needed in the technological age. Job readiness (employability) is vital for university graduates as well as the higher education institutions themselves. College graduates will more quickly and easily get the job they want if they have work readiness according to their field of study background. Job readiness refers to the capacity and willingness of individuals to be able to stand out in the labour market (Zunita & Ratna Widiastuti, 2019).

Director General of Manpower Placement Development and Expansion of Employment Opportunities, Maruli Hasoloan at liputan6.com Ramdhani (2018) stated that students who are studying must be prepared to face the significant challenges that are happening today, including the industrial revolution 4.0 (Wiradarma & Sari Widhiyani, 2021). Several new competencies are needed for university graduates to adapt to work patterns in the era of the industrial revolution 4.0. A deep understanding and research of student work readiness must also be a concern so that they have adequate competitiveness readiness and are prepared to face the big challenges that are currently happening. This challenge follows the new work pattern created in the 4.0 revolution era.

Job readiness for students is a vital asset to pay attention to so that, when they graduate, employment challenges in the industrial 4.0 era are not a big obstacle. Research conducted by Hendarman (2021) with the research title Human Capital Readiness for the Industrial Age 4.0 in the Manufacturing, Banking and Telecommunications Industries measures individual work readiness in industry 4.0 using assessments with elements of Knowledge, Hard Skills, Soft Skills and Attitudes. Research by Hendarman explained to adapt to the industrial revolution 4.0, the company's human resources play an essential role. Because even though the 4.0 era is dominated by robotic technology and automation, more is needed to completely replace the role of humans. The workplace will require new skills that must be possessed by prospective workers, including students as resources who will enter the world of work when they graduate.

Talking about work readiness in the era of the industrial revolution 4.0, two factors influence student work readiness, including internal and external factors. In aspects that come from within the individual, there is an ability to make an objective assessment of one's ability to solve a problem or achieve a goal, where this is called efficacy belief or better known as self-efficacy (Knight, 2004). Self-efficacy is an individual's belief in one's ability to be able to perform a task and achieve specific goals (Bandura, 1997). According to Bandura, a person's self-efficacy greatly influences his behaviour because self-efficacy is one of the main factors in forming attitudes.

In 2020, a research by Lau et al, "Examining the Indirect Effects of Self-Concept on Work Readiness Through Resilience and Career Calling" demonstrated two new mechanisms that explain the relationship between self-concept and work readiness. Specifically, both career calling and resilience were significant mediums through which self-concept influences an individual's work readiness (Lau et al., 2020). The result also showing that the effect for self-concept to resilience to work readiness was significantly stronger than that for self-concept to career calling to work readiness. Therefore, the author interested to test how self-resilience influence work-readiness for this study. Self-resilience is frequently described in modern studies as "positive adaptation to adversity" (Masten, 2002).

Since this study discusses work readiness in the industry 4.0 era, researchers realize that in the world of work in an age where most of the work is supported by digital sophistication and technology, a digital mindset is needed for each individual. According to Benke's view (Benke, 2013), a digital mindset is a set of experiential mental knowledge structures formed by living in a digital society and which people recognize and use to succeed in digital environments.

Based on the explanation of digital self-efficacy, digital mindset, resilience, and job readiness in the era of the industrial revolution 4.0, researcher is trying to determine whether there is a significant relationship among the four variables. Those variables will be tested for their relationship with student work readiness using elements of job readiness measurement taken from Hendarman's research (2021) including knowledge, soft skills, hard skills, and attitudes. For the object of this study, the author prefers to choose scholarship recipients because based on the research that Ni'mah Hayati Putri carried out in 2021, scholarship recipients have exemplary achievements and motivation, where scholarship recipients have the desire to excel and be the best compared to other students (Ni'mah Hayati, 2021). This is related to the competencies needed by the world of work in the era of the industrial revolution 4.0, where the resources needed must have high motivation and strive to become superior people.

Thus, this research has two benefits: theoretical and practical. The theoretical benefit of the results of this research is that it can make a scientific contribution to the development of psychology related to the relationship among self-efficacy, digital mindset, resilience and work readiness in students in the era of the industrial revolution 4.0 and the practical benefit of the results of this research is that it can increase the reader's knowledge related to self-efficacy, digital mindset, resilience and work readiness in scholarship recipient students.

METHODOLOGY

The paradigm used in this study is the post-positivism paradigm. According to Salim, the post-positivism paradigm considers that humans cannot always be right in viewing reality. Therefore, a triangulation method is needed to collect various sources of data and information. Salim also explained that in this paradigm, the relationship between observer and object must be interactive, not just behind the scenes (Salim, 2001). This research applied quantitative methodology. Deductive techniques to the research process that support or refute pre-existing theories define quantitative research. This form of analysis involves measuring variables and examining relationships between variables to identify patterns, correlations, or causal linkages. Researchers may use statistical data produced by linear data gathering and processing methods. Neutrality, objectivity, and the accumulation of a wide range of knowledge are the values that underpin quantitative research (Leavy, 2017).

This study used multiple regression to analyze the hypotheses. After that, a statistical method known as multiple regression is used to examine the relationship between a single dependent variable and several independent variables. In order to forecast the value of the single dependent value, multiple regression analysis uses independent variables whose values are known.

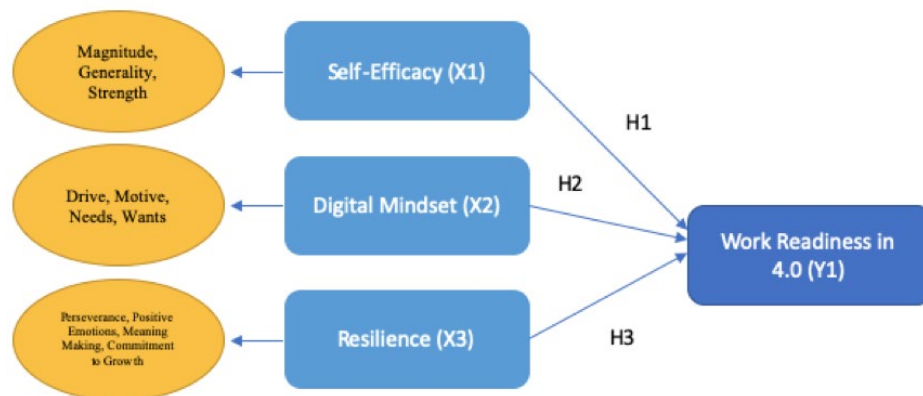


Figure 1. Research Hypothesis

Researchers rely on primary data in collecting questionnaires from respondents. This study aimed Bank Indonesia scholarship recipients in West Java as the respondent. Thus, the population of this research is the recipient of a scholarship in West Java, Indonesia, and the author used simple random sampling, where the researcher takes sample members randomly without paying attention to the strata in the population.

With a total population of Bank Indonesia West Java scholarship recipients of 635 students, the sample required to represent the population is at least 245 students with the following calculations using Slovin formula:

$$n = 635 / (1 + (635 \times 0.0025)) = 245,41 = 245 \text{ respondent}$$

Researchers distributed questionnaires to research respondents regarding the self-efficacy, digital mindset, resilience, and work readiness in the era of the industrial revolution 4.0. After the questionnaire data has been collected and analysed by statistical methods. Data was collected and obtained directly from respondents using a questionnaire (questionnaire). A questionnaire is a data collection technique that gives respondents a set of questions or written statements to answer. The scale used by researchers in this instrument is the Likert scale. The Likert scale is the rating value for each answer or response, which is summed up so that it reaches a total value (Creswell, 2009).

According to Sugiyono (2013), the operational definition of a variable is an attribute or trait or value of a person, object or activity with certain variations determined by the researcher to be studied and then conclusions drawn. The variables and their operations are described in the following table:

Table 1. Operational Variable

Variables & Concept	Dimension	Indicator	Source
Self-Efficacy (X1)	Magnitude / Level (MA)	Related to the perception of each individual in view of the level of difficulty of a task	(Bandura, 1997)
	Generality (GE)	Is a feeling of ability shown by individuals in different task contexts, both through their	

			behavior, cognitive and affective	
		Strength (ST)	It is the strength of a person's belief about the abilities possessed and related to the resilience and tenacity of individuals in fulfilling their duties	
Digital (X2)	Mindset	Openness and Collaboration with Others (OC)	focuses on openness, inclusiveness and exchange with others.	(Lessiak, 2020)
		Progressive Work Methods Adoption (PW)	Proactivity, engagement, motivation, disruption, and new working practices, incorporating elements of agile and design thinking methodology.	
		Technology and Data Emphasis (TD)	This includes being receptive to new technological developments and eager to integrate them into daily life and work routines. It also entails learning and comprehending the ideas behind digital technology, such as artificial intelligence (AI), robotics, the internet of things, and others, and connecting those to new opportunities.	
Resilience (X3)		Perseverance (PS)	The ability to maintain effort and self-control in the face of difficulty	(Amir & Standen, 2019)
		Positive emotion (PE)	Retaining an optimistic viewpoint	
		Meaning-making (MM)	actively considering and reaffirming personal ideals in the face of challenges.	
		Commitment to growth (CG)	gaining strength and overcoming extreme hardship and loss of control.	
Work Readiness in 4.0 (Y1)		Knowledge (K)	An intellectual capital is performance-oriented	(Hendarman et al., 2021)

	through action with a classification of knowledge in the form of tacit or explicit knowledge, and specific or general knowledge.
Hard skills (HS)	Skills include intellectual activities such as thinking, reasoning or remembering and are influenced by an individual's IQ
Soft skills (SS)	skills, both internal and interpersonal, needed to develop individual, social participation and success in the workplace
Attitudes (A)	behavior based on conscious and unconscious mental views, developed cumulatively through experience and as a tendency to perceive certain objects or behaviors that are liked or disliked

RESULT

Demographic Background

The researchers obtained 268 respondents. The respondents were recipients of Bank Indonesia West Java scholarships, which consisted of Telkom University, Singaperbangsa Karawang University, IKOPIN University, State Islamic University (UIN), Bandung Institute of Technology (ITB), Indonesian University of Education (UPI). , Padjadjaran University (UNPAD), and Bandung Islamic University (UNISBA). Based on table 4.1 below, most of the questionnaires filled out came from Telkom University, namely 102 respondents, followed by the State Islamic University (UIN) 38 respondents, Padjadjaran University (UNPAD) 30 respondents, Singaperbangsa Karawang University 29 respondents, IKOPIN University 27 respondents, Institute of Technology Bandung (ITB) 19 respondents, Indonesian University of Education (UPI) 12 respondents, and finally Bandung Islamic University (UNISBA) with 11 respondents filling out a questionnaire.

Table 2. University Demographic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Telkom University	102	38.1	38.1	38.1

Universitas Singaperbangsa Karawang IKOPIN	29	10.8	10.8	48.9
University Universitas Islam Negeri (UIN)	27	10.1	10.1	59.0
Institut Teknologi Bandung (ITB)	38	14.2	14.2	73.1
Universitas Pendidikan Indonesia (UPI)	19	7.1	7.1	80.2
Universitas Padjajaran (UNPAD)	12	4.5	4.5	84.7
Universitas Islam Bandung (UNISBA)	30	11.2	11.2	95.9
Total	11	4.1	4.1	100.0
	268	100.0	100.0	

The table below describes the gender demographics of the questionnaire fillers. The survey results showed that 160 female respondents or 59.7% filled out the questionnaire, and 108 male respondents or 40.3%.

Table 3. AgeDemographic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	160	59.7	59.7	59.7
	Male	108	40.3	40.3	100.0
	Total	268	100.0	100.0	

Validiy and Reabiity

Validity is a measure that indicates the level of validity or validity of an instrument. An instrument is said to be valid if it can reveal data from the variables studied correctly, so that they do not deviate from the actual picture (Creswell, 2009). In this study, the validity test was carried out using assistance SPSS program version 27 For Windows using Pearson, with conditions are valid if the value of r count $> r$.

The discovery of this outcome indicates that after analyzing data from a sample of 268 respondents and comparing the calculated r count value to the r table value, which is based on the Pearson Correlation Table for a sample size with a 5% level of significance, the r table value was determined to be 0.119. The validity test results for all respondents and questions were greater than 0.119 and considered **Valid**.

The reliability test looks at whether an instrument has a consistent degree so that it can be used as reliable data. In making decisions on the reliability test using a limit of 0.6. The results of the reliability test for the variables X1, X2, X3, and Y1, each obtained a Cronbach's Alpha value of more than 0.60, so **the instrument is said to be reliable**.

Table 4. Reability Test

Variable	Cronbach's Alpha	Notes
Self-Efficacy (X1)	0.668	Reliable
Digital Mindset (X2)	0.732	Reliable
Resilience (X3)	0.698	Reliable
Work Readiness 4.0 (Y1)	0.756	Reliable

Normality Test

The normality test is carried out to find out whether the values are normally distributed or not. This research uses the method One Sample Kolmogorov Smirnov test and the P-P normal graph method Plot of Regression Standardized Residuals.

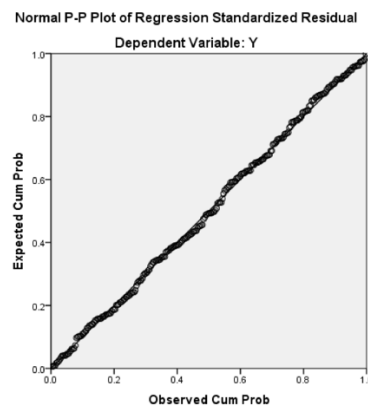


Fig. 2 P-P Plot Normal Test Result

Based on Figure 2, the pattern of data distribution is a histogram that follows a normal curve. So that based on normal chart analysis of the P-P Plot of Regression Standardized Residual, the curve pattern looks like it follows the line straight across, so that the data shows a distribution which is **normal**.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance and residuals from one observation to another. From the results of the Heteroscedasticity Test with the Glejser test on Table 3, it can be seen that the significance value of the Self-Efficacy, Digital Mindset, and Resilience variables has a significance value greater than the value $\alpha = 0.05$, which means that there is no heteroscedasticity problem in the regression model.

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.949	7.508		.260	.795
SE	-.337	.266	-.101	-1.270	.205
DM	.391	.227	.130	1.724	.086
RE	-.159	.216	-.055	-.735	.463

a. Dependent Variable: ABS_RES

Fig. 3 Glejser Test

Multicollinearity Test

The results of the multicollinearity test in the table above can be seen for the variables Self-Efficacy, Digital Mindset, and Resilience the tolerance value exceeds the criterion 0.10 and VIF is below 10, so that it can be said that these variables are free/no symptoms of multicollinearity occur.

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-7.239	7.538		-.960	.338		
SE	.554	.264	.127	2.097	.037	.594	1.684
DM	1.974	.227	.497	8.686	.000	.666	1.502
RE	.497	.218	.130	2.282	.023	.668	1.497

a. Dependent Variable: WR

Fig. 4 VIF Value and Tolerance

Multiple Regression Analysis

The relation of the independent factors on the dependent variable is assessed using regression analysis. Several independent variables are used in a regression model called "multiple linear regression" to determine the direction and magnitude of the independent factors' effects on the dependent variable.

Regression Model 1

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-7.239	7.538		-.960	.338
SE	.554	.264	.127	2.097	.037
DM	1.974	.227	.497	8.686	.000
RE	.497	.218	.130	2.282	.023

a. Dependent Variable: WR

Fig. 5 Regression Model 1

If $t\text{-count} > t\text{-table}$, then H_0 is rejected and H_a is accepted and vice versa $t\text{-count} < t\text{-table}$, then H_0 is accepted and H_a is rejected. The magnitude of the $t\text{-table}$ numbers with the provisions of Sig. 0.05 and $df = (n-k)$ or $(268-3) = 265$ with an alpha of 0.05 obtained a $t\text{-table}$ of 1.968. So that **the independent variables above such as Self-Efficacy (X1), Digital Mindset (X2), and Resilience (X3) have a positive significant effect on Work Readiness in Industry 4.0.**

Regression Model 2

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-7.979	7.574		.293
	SE	.606	.265	.139	.023
	DM	1.916	.234	.482	.000
	RE	.500	.218	.131	.022
	FEMALE	1.879	1.288	.076	.146
	TELKOM_UN	.676	1.337	.027	.614

a. Dependent Variable: WR

Fig. 6 Regression Model 2

If $t\text{-count} > t\text{-table}$, then H_0 is rejected and H_a is accepted and vice versa $t\text{-count} < t\text{-table}$, then H_0 is accepted and H_a is rejected. The magnitude of the $t\text{-table}$ numbers with the provisions of Sig. 0.05 and $df = (n-k)$ or $(268-5) = 263$ with an alpha of 0.05 obtained a $t\text{-table}$ of 1,969. **So that after adding control variables to the model, namely Female and Telkom University, the independent variables above such as Self-Efficacy (X1), Digital Mindset (X2), and Resilience (X3) still have a positive significant effect on Work Readiness in Industry 4.0 Meanwhile the control variables, which consist of Female, and Telkom University do not show a significant relationship to work readiness 4.0**

F Test

From the results of the F test it can be seen that the F-count value is 65,189 and the significance value is 0.000. As for the F table can be searched by the formula:

$$Df = (\alpha ; (k-1, n-k-1))$$

$$Df = (5\% ; (3-1, 268-3-1))$$

$$Df = (5\% ; (2, 264))$$

$$Df = 3,029$$

ANOVA ^a					
Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	16861.461	3	5620.487	.000 ^b
	Residual	22761.524	264	86.218	
	Total	39622.985	267		

a. Dependent Variable: WR

b. Predictors: (Constant), RE, DM, SE

Fig. 7 Simultaneous Testing

Since $F\text{-count} > F\text{-table}$ ($65,189 > 3,029$) and significance ($0.000 < 0.05$) **the variables Self-Efficacy, Digital Mindset, and Resilience together have a relationship with Work Readiness.**

Coefficient of Determination / R Square

The adjusted R square is 0.418. This figure means that the effect of Self-Efficacy, Digital Mindset, and on Work Readiness is 41.8% and the remaining 58.2% is explained by other variables outside the model.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.652 ^a	.426	.419	9.28536	2.146

a. Predictors: (Constant), RE, DM, SE

b. Dependent Variable: WR

Fig. 8 Coefficient of Determination (R²)

The adjusted R square is 0.419. This figure means that the effect of Self-Efficacy, Digital Mindset, and Resilience on Work Readiness is 41.9% and the remaining 58.1% is explained by other variables outside the model.

CONCLUSION

The aim of this research was to investigate and examine how Self-Efficacy, Digital Mindset, and Resilience linked to Work Readiness 4.0 on scholarship recipients of Bank Indonesia in West Java. The findings of the study can be summarized as follows:

Self-Efficacy has a **positive and significant** correlation with **Work Readiness 4.0**.

Digital Mindset has a **positive and significant** correlation with **Work Readiness 4.0**.

Resilience has a **positive and significant** correlation with **Work Readiness 4.0**.

Based on the result provided, it appears that self-efficacy, digital mindset, and resilience are all positively related to work readiness in Industry 4.0. This suggests that individuals who possess a digital mindset, are resilient, and have strong self-efficacy are more likely to be prepared for work in the context of Industry 4.0 towards Bank Indonesia scholarship recipients.

To promote work readiness in Industry 4.0 among students, academic parties such as universities, government, lecturers and Bank Indonesia as a scholarship providers can take the following recommendations:

Improving students' self-efficacy in working in Industry 4.0 can be achieved through several strategies that universities and scholarship providers by providing experiential learning opportunities: Giving students hands-on experience with Industry 4.0 technologies can help them build confidence in their ability to work with these tools. This can be accomplished through internships, co-op programs, and research projects that allow students to work on real-world problems in a supportive environment.

Integrate Industry 4.0 concepts into academic curricula: Academic institutions should consider including courses and training programs that focus on Industry 4.0 concepts, such as automation, artificial intelligence, and data analytics. This can help students develop the necessary skills and knowledge to succeed in a rapidly evolving work environment.

Foster a digital mindset: Academic institutions and scholarship providers can encourage students to develop a digital mindset by providing opportunities for them to learn and

experiment with digital technologies. This can include hackathons, coding competitions, and other technology-related events.

Encourage resilience: Students should be taught how to deal with challenges and setbacks in the workplace, and how to bounce back from failures. This can be achieved through workshops, mentoring programs, and other support systems. By implementing the recommendations outlined above, academic institutions and scholarship providers can better prepare students for success in the rapidly evolving landscape of Industry 4.0.

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