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FATORES QUE AFETAM A PRONTIDÃO DA K-ECONOMY: UM ESTUDO NO ENSINO SUPERIOR
FACTORS AFFECTING K-ECONOMY READINESS: A STUDY IN HIGHER EDUCATION
FACTORES QUE AFECTAN LA PREPARACIÓN PARA LA ECONOMÍA-K: UN ESTUDIO EN EDUCACIÓN SUPERIOR

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RESUMO

Introdução: O ensino superior desempenha um papel crucial no sistema de inovação da K-economia, gerando avanços científicos e técnicos substanciais e promovendo indivíduos inovadores. É essencial investigar a prontidão para a K-economia no setor educacional, uma vez que estudos anteriores se concentraram principalmente neste tópico no setor industrial.
Objetivo: Determinar o efeito do pensamento empreendedor, habilidades em TIC, habilidades sociais e interculturais, e preparação para a carreira na preparação para a K-economia em estudantes de graduação.
Métodos: Esta questão de pesquisa foi respondida por meio de análise de regressão múltipla de dados de pesquisas coletados de 578 estudantes de graduação em Educação Econômica em seis universidades com professores na ilha de Java, Indonésia.
Resultados: Este estudo descobriu que o pensamento empreendedor, habilidades em TIC, habilidades sociais e interculturais, e preparação para a carreira afetam positiva e significativamente a preparação para a K-economia dos estudantes de graduação.
Conclusão: A implementação de ajustes nas políticas educativas com base nas conclusões deste estudo pode melhorar o conhecimento dos alunos e o desenvolvimento de competências no ensino superior para aumentar a competitividade na K-economia. O ensino superior precisa contar com a informação e a inovação para contribuir eficazmente para o crescimento económico e social de forma sustentável através da K-economia.

Palavras-chave: preparação para a carreira; pensamento empreendedor; habilidades em TIC; preparação para a k-economia; habilidades sociais e interculturais

ABSTRACT

Introduction: Higher education plays a crucial role in the innovation system of the K-economy by generating substantial scientific and technical advancements and fostering innovative individuals. It is essential to investigate the K-economy readiness of the education sector, as past studies have mostly focused on this topic in the industrial sector.
Objective: To determine the effect of entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness on the K-economy readiness of undergraduate students.
Methods: This research question was answered using multiple regression analysis of survey data collected from 578 undergraduate students of Economics Education at six teacher-based universities on the island of Java, Indonesia.
Results: This study found that entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness all positively and significantly affect the K-economy readiness of undergraduate students.
Conclusion: Implementing education policy adjustments based on this study's findings can enhance student knowledge and skill development in higher education to increase competitiveness in the K-economy. Higher education needs to rely on information and innovation to effectively contribute to economic and social growth sustainably through the K-economy.

Keywords: career readiness; entrepreneurial thinking; ICT skills; k-economy readiness; social and cross-cultural skills

RESUMEN

Introducción: La educación superior desempeña un papel crucial en el sistema de innovación de la K-economía al generar avances científicos y técnicos sustanciales y fomentar individuos innovadores. Es esencial investigar la preparación para la K-economía en sector educativo, ya que estudios anteriores se han centrado principalmente en este tema en el sector industrial.
Objetivo: Determinar el efecto del pensamiento empresarial, habilidades en TIC, habilidades sociales y transculturales, y la preparación profesional en la preparación para la K-economía de los estudiantes universitarios.
Métodos: Esta pregunta de investigación se respondió mediante un análisis de regresión múltiple de datos de encuestas recopilados de 578 estudiantes universitarios de Educación Económica en seis universidades basadas en docentes en la isla de Java, Indonesia.
Resultados: Este estudio encontró que el pensamiento empresarial, habilidades TIC, habilidades sociales y transculturales, y la preparación profesional afectan positiva y significativamente la preparación para la K-economía de los estudiantes universitarios.
Conclusión: La implementación de ajustes en la política educativa basados en los hallazgos de este estudio puede mejorar el conocimiento y el desarrollo de habilidades de los estudiantes en la educación superior para aumentar la competitividad en la K-economía. La enseñanza superior debe apoyarse en la información y la innovación para contribuir eficazmente al crecimiento económico y social de forma sostenible a través de la K-economía.

Palabras Clave: preparación profesional; pensamiento empresarial; habilidades en TIC; la preparación para la k-economía; habilidades sociales y transculturales

INTRODUCTION

The innovation system, education and skills, information and communication infrastructure, and the institutional and economic regime are the four main pillars that support the K-economy (World Bank Institute, 2009). Higher education is an important contributor to the K-economy's innovation system because it produces significant scientific and technological progress and innovative individuals (Hope & Limberg, 2021; Zou & Zhu, 2021). Higher education is the most important tool for determining the workforce and alignment between higher education and industry. Cooperation between higher education and industry is crucial to closing the knowledge gap between academic knowledge and practical application, giving graduates the skills they need to succeed in the K-economy (Aryani, 2020; Nuraini et al., 2023; Parveen et al., 2021).

To establish a national K-economy, it is essential to comprehensively analyze the strengths and weaknesses of each country (World Bank Institute, 2009). The shortcomings that have surfaced in Indonesia pertain to the pillar of education, namely those with the education system. Misalignment of workers' skills and their field of work, knowledge-intensive work accounts for only 9.8% of total employment in Indonesia. Higher education graduates struggle to translate their knowledge, skills, and competencies (Aryani, 2020). College graduates face high unemployment rates due to low-tech skills that are incompatible with more high-tech work environments. All colleges in Indonesia must offer entrepreneurship education to promote entrepreneurial spirit and thinking among students to address that issue. Entrepreneurship courses at universities are needed to foster entrepreneurial spirit and thinking among students, in addition to preparing students for the workforce (Rifa'i, Achmad, 2019).

Education in the twenty-first century is not only focused on the exchange of information and knowledge but also on mastering ICT and cultural competence which are important vehicles in a world experiencing rapid globalization (Bican, 2021; Trilling & Fadel, 2009). Besides that, given the large number of university graduates in Indonesia who lack career readiness, students should be provided with adequate career readiness supplies (Safitri & Syofyan, 2023). Career development through skill development becomes the basic capital for reaching a career's pinnacle. Career-related skills are what can boost productivity (Deming & Noray, 2020).

This study is significant as it addresses the issues faced by the K-economy in Indonesia and identifies the specific knowledge and skills required by undergraduate students to contribute to the K-economy. It provides new insights into the K-economy from an educational sector that is directly relevant to students. Hope & Limberg (2021) and Parveen et.al. (2021) conducted previous studies on the K-economy from an economic sector. This study investigates the K-economy readiness of undergraduate students by conducting a quantitative correlational-predictive analysis. It will analyze four factors that influence K-economy readiness: entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness.

1. THEORETICAL FRAMEWORK

The global economy is transitioning towards a K-economy, where the significance of information and knowledge as the most valuable assets in driving economic processes is emphasized (Aryani, 2020). The K-economy is a business model that emphasizes innovation, creation, information dissemination, and its practical implementation to stimulate prosperity and economic expansion (World Bank Institute, 2009). Higher education is crucial in the process of generating, spreading, and utilizing information and expertise. To thrive in the information economy, it is essential to have a workforce that possesses advanced education and skills (Hope & Limberg, 2021). Education is considered a fundamental component of the K-economy since it plays a crucial role in generating competent and knowledgeable individuals. This makes it a significant factor in enhancing human capital (Nuraini et al., 2023).

This study is grounded in the human capital theory, which posits that a country's efficiency and productivity are directly correlated with the quality of its human resources. Consequently, by enhancing the quality of its human capital, a country may effectively decrease its unemployment rates (Rohimah, 2021). During the shift towards a knowledge-based economy, Indonesia is facing a significant issue in its higher education system, characterized by a regular discrepancy between the curriculum taught in classrooms and the skills demanded by the job market. This has resulted in a significant issue, specifically the unemployment rate among individuals with higher education degrees who are only able to find employment stands at 17.5% (Aryani, 2020).

Researchers employ the fundamental theory and previous research findings to determine variables. The objective of this study is to ascertain the determinants of K-economy readiness, drawing on the findings of Nuraini et.al.'s (2023a) research. The study examines the specific knowledge and skills that undergraduate students need, including entrepreneurial thinking, ICT skills, and social and cross-cultural skills. According to ACT (2019), career readiness refers to the condition of having a significant level of knowledge and skills in a specific field, which is crucial for attaining success in one's chosen profession. The dependent variable in this study is undergraduate students' efforts to enhance their knowledge, attitudes, and skills to support the K-economy pillars.

Regardless of one's job choice, for individuals to succeed in the global context of the twenty-first century, they must have skills related to the development of entrepreneurial thinking (Bacigalupo et al., 2016). This is interpreted as that entrepreneurial thinkers are considered to use effective reasoning when making decisions to pursue goals, which set goals and then find ways to achieve them. Students who cultivate entrepreneurial thinking can improve their ability to identify opportunities, solve problems,

and adapt to changing circumstances. This is in line with the needs of the K-economy which is becoming more innovative and adaptable. The first hypothesis in this study is as follows:

H1: *Entrepreneurial thinking has a significant effect on K-economy readiness*.

ICT skills are the ability to find, select, and evaluate information known as information literacy. Individuals' ICT skills can be measured by how they use various technological resources and techniques to communicate, as well as to create, distribute, store, and manage information (Trilling & Fadel, 2009). This study defines ICT skills as the skills that students have in understanding, finding information, and communicating it through the use of various electronic resources. As the K-economy thrives on the rapid exchange of information, ICT skills become increasingly important in enabling individuals to adapt, contribute, and develop in an environment where technological advancements are critical to economic progress. The second hypothesis in this study is as follows:

H2: *ICT skills has a significant effect on K-economy readiness*.

Two aspects of social and cross-cultural skills include (1) interacting effectively with others; and (2) working effectively in diverse teams (Trilling & Fadel, 2009). Social and cross-cultural competence is an important tool in the era of globalization because it is becoming easier for people from different cultures to carry out interpersonal interactions as technology advances and creates new means of communication (Bican, 2021). In this study, social and cross-cultural skills are defined as students' ability to interact and work effectively with others or diverse teams. Embracing diversity and effectively working across cultural boundaries has become not only necessary for social cohesion but also critical for realizing the full potential of the K-economy. The third hypothesis in this study is as follows:

H3: *Social and cross-cultural skills have a significant effect on K-economy readiness*.

The knowledge and skills that students need to successfully pursue education in their chosen career field are referred to as career readiness (ACT, 2019). Career readiness includes a variety of skills and attributes that new college graduates need to succeed in a labor market characterized by rapid changes and hiring procedures. Therefore, students must know the technical skills and information necessary for a particular job field to prepare for a career. Career readiness includes a variety of skills and attributes that new college graduates need to succeed in a labor market characterized by rapid changes and hiring procedures. Students who have a diverse set of skills and a solid knowledge base will be better prepared to contribute to the economy's rapid growth. The fourth hypothesis in this study is as follows:

H4: *Career readiness has a significant effect on K-economy readiness*.

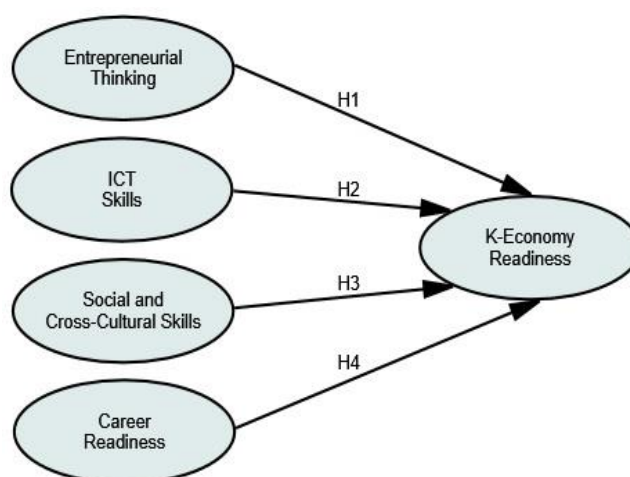The four hypotheses in this study are described in the following research framework:

Figure 1 - Research Framework

Figure 1 shows that the dependent variable in this study is K-economy readiness (KR), and the independent variables are entrepreneurial thinking (ET), ICT skills (IS), social and cross-cultural skills (SS), and career readiness (CR).

2. METHODS

Quantitative research methods are appropriate when survey instruments allow for quantifiable variables and hypothesis testing using statistics. Correlational predictive designs allow for the simultaneous measurement of multiple variables and their interrelationships and are appropriate when collecting data from large sample sizes (Bougie & Sekaran, 2020). This correlational-

predictive quantitative study aims to examine the direct effect of entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness on K-economy readiness.

2.1 Sample

Multistage sampling via cluster sampling and simple random sampling was used in this study to determine the sample size from a total population of 3.990 students. This study collected questionnaire data from 578 students of the undergraduate of Economics Education at six teacher-based universities on the island of Java, Indonesia. The rationale for selecting the sample in this study includes: educational study programs on Java Island dominate at 48.91% in Indonesia (Direktorat Jenderal Pendidikan Tinggi, 2020), and Java Island has the highest average percentage of human development index of 75.13% compared to the other five large islands (BPS Indonesia, 2022).

2.2 Data Collection Procedures and Instruments

Questionnaires were online distributed to all active students who had taken introductory courses in economics and entrepreneurship at six teacher-based universities for two months and monitored via email. All procedures were carried out following the university's ethical standards. This study uses a 7-point Linkert scale as an interval scale with the answer options "strongly disagree" and "strongly agree". Scale 7 has the advantage of being more sensitive than scale 4, allowing the level of bias to be reduced (Bougie & Sekaran, 2020). Following the development of the study's instruments, which are based on the synthesis of theories studied regarding a variable concept to be measured, instrument items in the form of questions are written and validated by an expert.

The following step is to make revisions or improvements based on expert recommendations before conducting the pilot test. Following that, an Exploratory Factor Analysis (EFA) test was run on the pilot test data to remove items with factor loadings less than 0.50. All questionnaire items given to respondents have been validated and proven to be reliable, except for 4 items (ET3, ET10, CR2, and KR12) because these factors have a loading factor of <0.05. As a result, these four items had to be removed before further analysis.

Entrepreneurial thinking is measured based on indicators of personality traits and personality skills (Davis et al., 2015). The ICT skills factor is based on indicators of using basic technology, using digital technology, and understanding the ethics of access and use of IT (Olatoye et al., 2021; Trilling & Fadel, 2009). Furthermore, social and cross-cultural skills are measured based on indicators of interacting effectively with others and working effectively in diverse teams (Trilling & Fadel, 2009). Career readiness is based on self-assessment indicators (Perera et al., 2018), while K-Economy readiness is based on indicators of the four pillars of the K-economy (World Bank Institute, 2009).

2.3 Statistical Analysis

Multiple linear regression, an extension of simple linear regression, is used in this research data analysis to determine a variable's value based on two or more variables. Testing each item's validity and reliability, as well as classical assumption tests like the heteroscedasticity, multicollinearity, and normality tests, are necessary before performing multiple regression analysis. The stages of the multiple regression analysis used in this study are the F-test, t-test, and coefficient of determination analysis (Ghozali, 2018).

3. RESULTS

The findings of this study describe the stages of data analysis, which include: 1) validity and reliability test, 2) classical assumption test, and 3) multiple regression analysis using the Statistical Package for Social Sciences (SPSS) software program version 26.0 to test the hypothesis. Multiple regression analysis is used to determine the effect of entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness on the K-economy readiness of undergraduate students.

3.1 Validity and Reliability

The data in this study is valid if the calculated R-correlation value is greater than the R-table of 0.080 (N-2; 578-2=576) with a significance level of 5%. The correlation value for all questionnaire question items in this study is greater than 0.080, so it can be concluded that all question items in this research questionnaire are valid. the Cronbach's Alpha value for, entrepreneurial thinking is 0.981, ICT Skills is 0.978, social and cross-cultural skills is 0.977, career readiness is 0.980, and K-economy readiness is 0.991. The results of the reliability test show that all Cronbach's Alpha values are >0.70. This means that this research questionnaire is reliable.

3.2 Normality Test

The purpose of the normality test is to ascertain whether the regression model's data is normally distributed (Ghozali, 2018). A normal distribution of data indicates a good regression model. The results of the tests will be unreliable if the assumption of normality is not valid (Bougie & Sekaran, 2020). In this study, the normality test for residuals used the Kolimogorov-Smirnov test because the sample is >50. The significance level used is $\alpha=0.05$. If the probability value is >0.05, then data are normally distributed. The probability value is p or Exact. Sig. (2-tailed) of 0.613>0.05. This means that the data in this study is normally distributed.

3.3 Multicollinearity Test

Multicollinearity testing determines whether the regression model discovered a correlation between independent variables or independent variables (Ghozali, 2018). The Variance Inflation Factor (VIF) value can be used to determine whether multicollinearity exists. A VIF value greater than 10 indicates that an independent variable is multicollinear. The VIF value of entrepreneurial thinking is 1.755, ICT skills are 1.778, social and cross-culture skills are 2.568, and career readiness is 2.299. It is known that all VIF values for the independent variables are <10, so multicollinearity does not exist.

3.4 Multiple Regression Analysis

The proportion value called the coefficient of determination (R^2) assesses the degree to which the independent variables in the regression equation can explain variations in the dependent variable. A value near 1 and far from 0 indicates that the independent variables can provide all the data required to predict the dependent variable (Ghozali, 2018). A value of R-square greater than 0.67 is considered strong; values between 0.33 and 0.67 are considered moderate; and values between 0.19 and 0.33 are considered weak. The R Squared (R^2) value is 0.687, meaning that all independent variables can affect the dependent variable by 68.7%, and the remaining 31.3% is explained by other variables or factors.

Hypothesis Testing

Simultaneous significance tests (F-test) and partial significance tests (t-test) are used in multiple regression to test hypotheses. The F-test examines the effect of entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness on K-economy readiness. The calculated F-value is 314.902>2.39 (F-table), and the significance value is 0.000<0.05. Thus, entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness have a positive and simultaneously significant effect on K-economy readiness. The multiple regression equation is derived from the data in Table 1 below:

Table 1 - Coefficients in Multiple Regression

Model	Coefficients^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-6.596	2.083		-3.167	.002
Entrepeneurial_Thinking	.644	.045	.439	14.186	.000
ICT_Skills	.231	.051	.139	4.478	.000
Social_Culture_Skills	.372	.073	.191	5.100	.000
Career_Readiness	.446	.075	.211	5.948	.000

a. Dependent Variable: K_Economy_Readiness

The multiple regression equation in this study is as follows:

$$Y = -6.596 + 0.644X1 + 0.231X2 + 0.372X3 + 0.446X4$$

Based on this equation it can be interpreted as follows:

(1) Entrepreneurial Thinking (ET) has a positive regression coefficient of 0.644. This means that when K-economy readiness (KR) increases by one unit, it tends to increase by 0.644.
(2) ICT Skills (IS) has a positive regression coefficient of 0.231. This means that when K-economy readiness (KR) increases by one unit, it tends to increase by 0.231.
(3) Social and Cross-Cultural Skills (SS) has a positive regression coefficient of 0.372. This means that when K-economy readiness (KR) increases by one unit, it tends to increase by 0.372.
(4) Career Readiness (CR) has a positive regression coefficient of 0.446. This means that when K-economy readiness (KR) increases by one unit, it tends to increase by 0.446.

Following the F-test, the t-test (partial significance) is used to determine the degree of significance of each independent variable's effect on the dependent variable. In addition to testing the four hypotheses, this partial significance test seeks to provide answers to the research questions. The data in Table 2 are used to determine whether the study's hypothesis is accepted or rejected, and the t-table value is 1.964.

Table 2 - The Partial Significance Test

Model	Unstandardized Coefficients (B)	t	Sig.
(Constant)	-6.596	-3.167	.002
Entrepeneurial_Thinking	.644	14.186	.000
ICT_Skills	.231	4.478	.000
Social_Culture_Skills	.372	5.100	.000
Career_Readiness	.446	5.948	.000

a. Dependent Variable: K_Economy_Readiness

Hypothesis 1: The Entrepreneurial Thinking (ET) regression coefficient value is positive at 0.644. This indicates that Entrepreneurial Thinking (X1) has a positive effect on K-economy Readiness (Y). The t-value of X1 is 14.186>1.964 and the significance value is 0.000<0.05. It can be concluded that X1 has a positive and significant effect on Y, so the first hypothesis is accepted.

Hypothesis 2: The regression coefficient value for ICT Skills (IS) is 0.231, which is positive. This indicates that ICT skills (X2) has a positive effect on K-economy Readiness (Y). The t-value of X2 is 4.478>1.964 and the significance value is 0.000<0.05. The second hypothesis is accepted since it can be concluded that X2 has a positive and significant effect on Y.

Hypothesis 3: Social and Cross-Cultural skills (SS) have a positive regression coefficient value of 0.372. This suggests a positive relationship between social and cross-cultural skills (X3) and K-economy readiness (Y). A significance value of 0.000<0.05 and a t-value of 5.100>1.964 are found for X3. Assuming that X3 has a positive and significant effect on Y, the third hypothesis is accepted.

Hypothesis 4: At 0.446, the regression coefficient value for Career Readiness (CR) is positive. These suggest that K-economy Readiness (Y) is positively impacted by career readiness (X4). A significance value of 0.000<0.05 and a t-value of 5.948>1.964 are found for X4. It can be concluded that X4 has a positive and significant effect on Y, so the fourth hypothesis is accepted.

4. DISCUSSION

This study aims to examine the effect of entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness on the K-economy readiness of undergraduate students. Multiple regression analysis results show that entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness all positively and significantly affect K-economy readiness. Entrepreneurial thinking is the primary determinant of K-economy readiness. Based on the regression analysis results, the variable representing entrepreneurial thinking exhibits the highest coefficient value in comparison to the other three variables.

The main source of entrepreneurial innovation is knowledge developed from significant discoveries and new knowledge (Stam & Garnsey, 2018). In this case, higher education plays a part in transforming knowledge and carrying out extensive research to generate new knowledge. Developing entrepreneurial thinking among undergraduate students forms the foundation of the entrepreneurial ecosystem in higher education, which is one of the factors influencing K-economy readiness (Nuraini et al., 2023). Policymakers worldwide now depend on entrepreneurship as a driver of economic growth due to increased awareness of the role that businesses play in the K-economy (Stam & Garnsey, 2018).

Linking education and ICT is crucial for progressing the K-economy (World Bank Institute, 2009a). Higher education must prioritize investing in digital education, skill and competency development, and digital infrastructure to support current and future students (Abrantes et al., 2021). This study found that undergraduate students' ICT skills have a positive and significant effect on K-economy readiness. This finding aligns with the findings of the study of Parveen, et.al (2021), which indicated that the K-Economy's development and ICT infrastructure have a positive and significant relationship.

In addition, cross-cultural skills are needed for undergraduate education students or prospective teachers (Bican, 2021). This study has also indicated that social and cross-cultural skills positively and significantly affect K-economy readiness. Although entrepreneurial factors are frequently linked to the K-economy, socio-cultural factors also have a significant effect on knowledge-based innovation, which propels the growth of the K-economy (Vlasov et al., 2022). Thus, social and cross-cultural factors interact to shape how information is created, shared, and used globally, which in turn affects the K-economy.

Career readiness is the fourth factor in this study that positively and significantly influences K-economy readiness. This indicates that career readiness plays a significant role in students' K-economy readiness. Higher education can help students prepare for their future careers by collaborating on research with external partners. As a result, students have a set of knowledge and skills that are appropriate for the demands of the K-economy (Prelipcean & Bejinaru, 2018).

The analysis of the four factors in this study confirms that it is consistent with human capital theory, which states that allocating resources to education and training results in increased productivity and economic expansion. This highlights the importance of educational institutions that give priority to the growth and improvement of a nation's human capital. The study's findings highlight the interdependence between the education sector and the K-economy. The K-economy is affected by the quality of students, emphasizing the necessity for joint endeavors between higher education and industry to collaborate to align educational objectives with the requirements of the K-economy.

CONCLUSION

The study findings indicate that K-economy readiness is significantly affected by entrepreneurial thinking, ICT skills, social and cross-cultural skills, and career readiness. Undergraduate students' level of K-economy readiness is positively and significantly affected by these four factors. The previously unexplored results of multiple regression models on factors affecting K-economy readiness can facilitate collaboration between higher education and industry. This collaboration aims to enhance the knowledge and skill development of undergraduate students, enabling them to effectively compete in the K-economy. All regression techniques have the same conceptual limitation in that they can only determine relationships and not the underlying causal mechanisms. Furthermore, this study is limited to the geographical analysis of teacher-based universities on Java Island, Indonesia.

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Subsequent research can use the demographic information of individuals enrolled in private and explore additional domains to enhance the comprehensiveness of these results. Moreover, additional investigation can incorporate both online and offline methods for distributing questionnaires, enlarge the sample area, and include additional variables. This is necessary as there is still potential for exploring the various factors that affect undergraduate students' K-economy readiness.

AUTHOR CONTRIBUTIONS

Conceptualization, U.N., S.S. and M.H.; data curation, U.N., S.S. and M.H.; formal analysis, U.N., S.S. and M.H.; investigation, U.N. and S.S.; methodology, U.N., S.S. and M.H.; project administration, U.N., S.S. and M.H.; resources, U.N., S.S. and M.H.; software, U.N., S.S. and M.H.; supervision, U.N., S.S. and M.H.; validation, U.N., S.S. and M.H.; visualization, U.N., S.S. and M.H.; writing-original draft, U.N., S.S. and M.H.; writing-review and editing, U.N., S.S. and M.H.;

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

REFERENCES

Abrantes, J. L., Cunha, M., Amante, M. J., Correia, P., & Santos, P. (2021). Digital Education. *Millenium-Journal of Education, Technologies, and Health*, *2*, 5–6. https://doi.org/https://doi.org/ 10.29352/mill029e.25943

ACT (2019). The Condition of College & Career Readiness 2019. In *The Condition of College & Career Readiness 2019*. http://www.act.org/research/policymakers/cccr13/pdf/CCCR13-NationalReadinessRpt.pdf

Aryani, M. (2020). The Prospect of Indonesian Knowledge-Based Economy: Lessons from Taiwan. *Global and Policy Journal of International Relations*, *7*(2), 202–215. https://doi.org/10.33005/jgp.v7i02.1835

Bacigalupo, M., Kampylis, P., Punie, Y., & Brande, L. Van den. (2016). *EntreComp: The Entrepreneurship Competence Framework* (EAC-2014-0517 JRC; Issue 2).

Bican, G. (2021). Enhancing the Cross-Cultural Competence of Prospective Language Teachers. *Journal of Curriculum and Teaching*, *10*(3), 47–57. https://doi.org/10.5430/jct.v10n3p47

Bougie, R., & Sekaran, U. (2020). Research Methods for Business: A Skill-building Approach. In *Encyclopedia of Quality of Life and Well-Being Research* (8th Editio). Wiley. https://doi.org/10.1007/978-94-007-0753-5_102084

BPS Indonesia. (2022). Statistik Indonesia 2022. In *Statistik Indonesia 2022*.

Davis, M. H., Hall, J. A., & Mayer, P. S. (2015). Developing A New Measure of Entrepreneurial Mindset: Reliability, Validity, and Implications for Practitioners. *Consulting Psychology Journal: Practice and Research*, *October*, 1–30. https://doi.org/10.1037/cpb0000045

Deming, D. J., & Noray, K. (2020). A vast body of work in economics finds that technological change increases the relative demand for educated workers, which leads to rising wage inequality when the supply of skills grows more slowly (e.g.., Katz and Murphy 1992). Berman, Bound, and Grill. *The Quarterly Journal of Economics*, 1965–2005. https://doi.org/10.1093/qje/qjaa021

Direktorat Jenderal Pendidikan Tinggi. (2020). Statistik Pendidikan Tinggi (Higer Education Statistic) 2020. In *Setditjen Dikti, Kemendikbud*. https://doi.org/2528 - 0252

Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25* (9th ed.). Badan Penerbit Universita Diponogoro.

Hope, D., & Limberg, J. (2021). The Knowledge Economy and Taxes on the Rich. *Journal of European Public Policy*, *0*(0), 1–20. https://doi.org/10.1080/13501763.2021.1992483

Nuraini, U., Sahid, S., & Hussin, M. (2023). A Systematic Literature on K-Economy Readiness in Higher Education. *Educacion y Humanismo*, *25*(45), 161–183. https://doi.org/10.17081/eduhum.25.45.6471

Olatoye, O. I. O., Nekhwevha, F., & Muchaonyerwa, N. (2021). ICT Literacy Skills Proficiency and Experience on the Use of Electronic Resources Amongst Undergraduate Students in Selected Eastern Cape Universities, South Africa. *Library Management*, *42*(6–7), 471–479. https://doi.org/10.1108/LM-08-2020-0118

Parveen, S., Mahmood, B., Siddiqui, S., Ch., A., & Mushtaq, M. (2021). Role of Higher Education in Creation of Knowledge Economy in Punjab, Pakistan. *Revista Amazonia Investiga*, *9*(36), 38–50. https://doi.org/10.34069/ai/2020.36.12.3

Perera, M. A., Fernandes, T., & Paniker, P. (2018). Career Readiness: A Survey on Effectiveness of Learning. *International Journal of Engineering Technologies and Management Research*, *5*(11), 1–21. https://doi.org/10.5281/zenodo.2281404

Nuraini, U., Sahid, S., & Hussin, M. (2024). Factors affecting k-economy readiness: a study in higher education.
Millenium - Journal of Education, Technologies, and Health, 2(24), e34723

8

Prelipcean, G., & Bejinaru, R. (2018). University Agenda for Developing Students' Skills in The Knowledge Economy. *Strategica Challenging The Status Quo in Management and Economics*, *6th International Academic Conference on Strategica-Challenging the Status Quo in Management and Economics*, 587–598. https://strategica-conference.ro/wp-content/uploads/2022/05/52.pdf

Rifa'i, Achmad, N. E. T. (2019). Rencana Strategi dalam Menerapkan Pendidikan Kewirausahaan di Perguruan Tinggi melalui Proses Pembelajaran yang Berkelanjutan. *Jumanis-Baja: Jurnal Manajemen Dan Bisnis Baja*, *1*(2), 71–90.

Rohimah. (2021). Knowledge-Based Economy As Human Capital Investment to Drive The Nation's Economic Growth. *Tahdzib Al-Akhlaq: Jurnal Pendidikan Islam*, *4*(1), 29–46. https://doi.org/https://doi.org/10.34005/ tahdzib.v4i1.1303

Safitri, & Syofyan. (2023). Pengaruh Pengalaman Magang dan Future Time Perspective terhadap Kesiapan Kerja Mahasiswa Fakultas Ekonomi Universitas Negeri Padang. *Jurnal Pendidikan Tambusai*, *7*(1), 3857–3865. https://doi.org/10.31004/jptam.v7i1.5851

Stam, E., & Garnsey, E. W. (2018). *Entrepreneurship in the Knowledge Economy 1 Erik Stam & Elizabeth Garnsey University of Cambridge*. *April 2007*. https://doi.org/10.2139/ssrn.1923098

Trilling, B., & Fadel, C. (2009). *21st Century Skills: Learning for Life in Our Times* (First Edition). Jossey-Bass.

Vlasov, M., Polbitsyn, S. N., Olumekor, M., & Oke, A. (2022). The Influence of Socio-Cultural Factors on Knowledge-Based Innovation and the Digital Economy. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*, 1–13. https://doi.org/https://doi.org/10.3390/ joitmc8040194

World Bank Institute. (2009). *Measuring Knowledge in the World's Economies*. http://siteresources.worldbank.org/Intunikam/ Resources/Kam_v4.pdf

Zou, L., & Zhu, Y. W. (2021). Universities' Scientific and Technological Transformation in China: Its Efficiency and Influencing Factors in the Yangtze River Economic Belt. *PLoS ONE*, *16*(12 December), 1–18. https://doi.org/10.1371/journal.pone.0261343