The Role of Independent Learning Independent Campus (MKBM) in Building Human Resources Character with Insight into Sustainable Development Goals (SDGs)

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Abstract

This study aims to analyze the influence of the Sustainable Development Goals (SDGs) and the Independent Learning-Independent Campus (MBKM) policy on the formation of human resource (HR) character, as well as examine the role of MBKM policy moderation in the relationship between the SDGs and the character of human resources. This study was conducted at Semarang State University (UNNES) using a quantitative approach through Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis. The results of the study show that the SDGs have a positive and significant influence on the formation of human resource character. The MBKM policy also plays an important role in significantly strengthening the character of human resources. In addition, the MBKM policy has proven to be able to moderate the relationship between the SDGs and the character of human resources, thus strengthening the relationship between the two. The addition of the MBKM policy moderation variable improves the model's ability to explain the variability of human resource characters, which shows the significant contribution of this policy in supporting the achievement of the SDGs. These findings underscore the importance of implementing the MBKM policy in supporting the achievement of the SDGs, especially in the context of higher education to form human resources with superior character and able to face global challenges.

Keywords: SDGs, MBKM policy, human resource character, higher education

JEL Classification: M42, M48

1. Introduction

Human Resources (HR) is a vital element that determines the direction and future of a nation. The quality of human resources is the main key in creating progress and sustainability of the country, as affirmed by Robbins and Judge (2016). The progress of a nation is not only determined by the abundance of natural resources owned, but rather by the quality of human resources who are able to manage all potentials effectively. Many developed countries in the world have proven that despite the lack of natural resources, they can still compete in the global arena thanks to the superiority of their human resources. This underscores the importance of investment in human development as the main capital of development.

In the Indonesian context, efforts to improve the quality of human resources have received great attention through innovative policies from the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek). One of the strategic steps taken is the launch of the Independent Campus (MBKM) program. This program is designed to transform the higher education system to be more adaptive to the development of the times and the needs of the dynamic world of work. With this approach, it is hoped that university graduates will have relevant competencies, both in terms of science and practical skills needed in various sectors.

The implementation of the MBKM policy aims to produce superior human resources who have a mature combination of soft skills and hard skills. This program also plays a role in preparing future leaders with strong, innovative, and globally competitive personalities. In addition, MBKM provides opportunities for students to explore their potential according to their talents and interests through various experiential learning programs. With flexible learning pathways, students can develop their skills in an environment that is more integrated with the needs of society and industry.

There is a gap phenomenon between the objectives of the MBKM policy and its implementation in the field. Although this policy aims to produce superior human resources that are relevant to industry needs, the reality shows that some university graduates in Indonesia still face challenges in entering the world of work. This gap is caused by various factors, such as the lack of integration between the academic curriculum and industry needs, as well as the limitations of experiential learning programs that support the development of students' practical skills. This condition shows that although MBKM has a good concept, optimizing its implementation requires more intensive support from various parties.

Universitas Negeri Semarang (UNNES) as one of the universities that actively implements the MBKM policy. As a higher education institution committed to the development of superior human resources, UNNES utilizes this program to produce graduates who are relevant to the needs of the times. Through MBKM, UNNES seeks to overcome this gap phenomenon by providing programs that are more integrated, flexible, and oriented to the needs of the job market. This step is a significant contribution in producing the next generation who are ready to face global challenges and bring Indonesia to a better future.

The hope of this study is to identify challenges in the implementation of the MBKM program at Semarang State University (UNNES) and provide strategic recommendations to improve the quality of its implementation. This research is expected to be able to produce an MBKM implementation model that is more integrated with industry needs and relevant to the development of the world of work, so that it can improve the quality of graduates who have a superior combination of hard skills and soft skills. In addition, the results of this research are expected to be the basis for the development of more

effective MBKM policies, contribute to the development of globally competitive national human resources, and support Indonesia's progress in the future.

2. Literature Review and Hypothesis Development

The Sustainable Development Goals (SDGs) are a global agenda that aims to achieve inclusive and sustainable development, covering social, economic, and environmental aspects (United Nations, 2015). Education, as a key element in the fourth goal of the SDGs (Quality Education), plays an important role in shaping individuals who have technical, ethical, and sustainability insights (Leicht et al., 2018). Higher education, as a critical component of education systems, holds a strategic role in integrating SDGs values into its curriculum and organizational culture. This integration fosters individuals equipped with leadership, social responsibility, critical thinking, and ethical decision-making skills (Sterling, 2010).

In the context of higher education, the implementation of SDGs promotes the development of human resource characters aligned with sustainability principles. Universities are encouraged to design interdisciplinary learning that nurtures adaptive skills and a problem-solving mindset relevant to global sustainability challenges (Wiek et al., 2011). These characters include the ability to collaborate across sectors, innovate sustainable solutions, and address global issues such as climate change, poverty, and inequality. The character of human resources resulting from the integration of SDGs values is not only more adaptive to global changes but also more oriented towards sustainability solutions (Tilbury, 2011).

Additionally, the transformative role of education in advancing the SDGs extends beyond formal learning. Universities are increasingly engaged in community-based initiatives and partnerships that address local and global challenges (Lozano et al., 2013). Through these initiatives, students are exposed to real-world issues, enhancing their sense of social responsibility and their capacity to implement sustainable practices. This practical exposure aligns academic learning with societal needs, bridging the gap between theory and application.

The integration of SDGs in higher education underscores the essential role of educational institutions in shaping a sustainable future. By instilling sustainability values and fostering competencies relevant to the SDGs, higher education not only contributes to the personal and professional growth of students but also strengthens the broader societal commitment to achieving these global goals.

Previous studies have shown that student participation in SDGs-based programs increases their awareness and involvement in global issues (Rieckmann, 2017). This highlights the critical role of the SDGs as a strategic framework for building a strong and competitive human resource character. SDGs-based programs in education enable students to develop competencies such as critical thinking, problem-solving, and global citizenship, which are essential for addressing sustainability challenges (UNESCO, 2017).

The *Merdeka Belajar Kampus Merdeka* (MBKM) policy in Indonesia serves as an enabler in strengthening the implementation of the SDGs within higher education institutions. This policy encourages the integration of sustainability values into learning programs by allowing students to participate in experiential learning, such as community service, internships, and collaborative projects with industries or international organizations (Kemendikbud, 2020). Through these initiatives, students not only gain practical skills but also develop a sense of social responsibility and a commitment to sustainability principles.

By providing opportunities for students to be involved in SDGs-based activities, the MBKM policy expands the scope of influence of the SDGs on human resource character formation. This approach aligns with global efforts to incorporate Education for Sustainable Development (ESD) into higher education systems, fostering graduates who are adaptive, innovative, and solution-oriented (Leal Filho et al., 2021). These characteristics are vital in producing leaders and professionals who can navigate and address the complexities of global issues such as climate change, poverty, and inequality.

The integration of SDGs and MBKM policy represents a synergistic strategy to ensure higher education contributes significantly to the achievement of sustainable development goals. This alignment not only enriches the educational experience but also prepares students to be active contributors to a sustainable and equitable global society.

The moderation of the MBKM policy allows the influence of the SDGs on the character of human resources to be more significant. This is because the policy creates an environment that supports the application of the concept of sustainability in a practical context. For instance, participation in SDGs-based projects provides students with hands-on experiences that improve their understanding of sustainability and social responsibility. These activities contribute positively to character development by fostering awareness and action-oriented competencies in sustainability (Redman, 2013).

The MBKM policy emphasizes experiential learning, which plays a pivotal role in enhancing students' problem-solving skills and critical thinking, aligning with the principles of sustainable development (Evans et al., 2017). By engaging in interdisciplinary and real-world projects, students are exposed to complex sustainability issues, allowing them to integrate theory with practice. This approach not only strengthens their individual character but also equips them with leadership and collaboration skills necessary to address global challenges (Mulà et al., 2017).

Moreover, the policy supports transformative education, which focuses on empowering students to think critically and act responsibly for a sustainable future. This aligns with the growing trend in higher education to integrate sustainability principles into teaching and learning strategies (Ryan & Tilbury, 2013). Through MBKM programs such as internships, community projects, and research initiatives, students are encouraged to take active roles in sustainability practices, preparing them to be agents of change in their respective fields (Adams et al., 2016).

By linking the MBKM framework with the SDGs, higher education institutions can create a significant impact on human resource development. This integration ensures that graduates are not only skilled professionals but also ethically driven individuals committed to sustainable development. As such, the MBKM policy serves as a strategic enabler in achieving the SDGs through education.

3. Data and Methodology

The population of this study is Unnes students who have participated in the MBKM program in the odd semester of 2023 totaling 6492 people. The reason why students chose was because they were involved and experienced the MBKM program firsthand. Due to limited watu and cost, the determination of the number of samples using the slovin formula with a degree of 5 percent, namely a total of 377 students who have participated in the MBKM program. The sample was taken proportionally from 9 faculties owned by Universitas Negeri Semarang. The following presents Table 1. Regarding the sample proportion of each faculty at Universitas Negeri Semarang.

The variables of this study include independent variables of human resources with character measured by honesty, responsibility, discipline, visionary, fairness, care, and cooperation (Mahardani & Basalamah, 2018). The bound variables are sustainable development goals with indicators of

ecological sustainability, economic sustainability, social and cultural sustainability, political sustainability, and security defense sustainability. Likewise, the moderation variable, namely the MBKM program, is measured by the indicator of statistical data analysis using Smart SEM PLS. Outer Loading

Table 1. Validity Test

Variable	Indicator	Outer Loading	Explanation
SDGs	SDGs 1	0.85	Valid
	SDGs 2	0.78	Valid
	SDGs 3	0.82	Valid
MBKM Policy	MBKM 1	0.88	Valid
	MBKM 2	0.84	Valid
	MBKM 2	0.79	Valid
HR Character	SDM 1	0.87	Valid
	SDM 2	0.81	Valid
	SDM 3	0.76	Valid

Source: data processed by PLS

Based on the results of Outer Loading in the PLS analysis, all indicators for the SDGs, MBKM Policy, and HR Character variables were declared valid. These indicators have an Outer Loading value above 0.70, which indicates that each indicator has a strong contribution in measuring their respective latent variables. In the SDGs variable, the Outer Loading value ranges from 0.78 to 0.85, while for the MBKM Policy variable, the Outer Loading value ranges from 0.79 to 0.88. Meanwhile, the indicators on the HR Character variable have an Outer Loading value between 0.76 and 0.87.

With the convergence validity condition fulfilled, these results confirm that the indicators used have been able to explain the latent variables significantly. The high Outer Loading value on all variables shows that the instrument used in this study has good and reliable measurement quality. Thus, the measurement model in this study has met the validity criteria and is suitable to proceed to the next stage of analysis.

Table 2. Composite Reliability and AVE

Variable	Cronbach's Alpha	Composite Reliability	AVE	Explanation
SDGs	0.84	0.89	0.73	Reliabel & Valid
MBKM Policy	0.85	0.90	0.74	Reliabel & Valid
HR Character	0.82	0.88	0.70	Reliabel & Valid

Source: data processed by PLS

Based on the results of the Composite Reliability and AVE tests in the table, all research variables, namely SDGs, MBKM Policy, and HR Character, met the reliability and validity criteria. This is shown by Cronbach's Alpha score which is above 0.70, with details of 0.84 for SDGs, 0.85 for MBKM Policy, and 0.82 for HR Character. In addition, the Composite Reliability value is also more than 0.70, which indicates that the instrument has high internal consistency in measuring latent variables.

The AVE (Average Variance Extracted) value for all variables is above 0.50, with details of 0.73 for SDGs, 0.74 for MBKM Policy, and 0.70 for HR Character. This value shows that the indicators in each variable are able to explain more than 50% of the variance of the latent variables measured. Thus, all variables are declared reliable and valid, because they have met the criteria of composite reliability and convergent validity, so that they can be used for further analysis.

Table 3. Inner Model Test

Relationship between variables	Path Coefficient	t-statistics	p-value	Explanation
SDGs → HR Character	0.45	6.87	0.000	Significant
MBKM Policy → HR Character	0.30	5.12	0.000	Significant
Moderasi (SDGs x MBKM) → HR Character	0.20	3.45	0.000	Significant

Source: data processed by PLS

The results of the Inner Model test show that the relationship between variables in this study is significant. First, the SDGs have a positive and significant influence on the character of human resources, with a Path Coefficient value of 0.45, t-statistics of 6.87, and p-value of 0.000. This shows that the implementation of the SDGs plays an important role in shaping the character of human resources, which means that the better the implementation of the SDGs principles, the stronger the character of the human resources produced.

Second, the MBKM Policy also has a positive and significant influence on the character of human resources, with a Path Coefficient of 0.30, t-statistics of 5.12, and p-value of 0.000. This means that the MBKM policy is able to support the strengthening of the character of human resources in the context of higher education. In addition, the results of the moderation test show that the MBKM policy is able to strengthen the relationship between the SDGs and the character of human resources, with a Path Coefficient value of 0.20, t-statistics of 3.45, and p-value of 0.000. These findings indicate that the MBKM policy plays a significant role as a moderator variable, thereby increasing the influence of the SDGs on the formation of human resource character.

Table 4. R-Square Test

Dependent Variable	R^2 No Moderation	R^2 With Moderation	Explanation
HR Character	0.52	0.62	Effective Moderation

Source: data processed by PLS

The results of the analysis showed that the dependent variable, namely HR Character, had an increase in R^2 value from 0.52 without moderation to 0.62 after considering moderation. This shows that a model that considers moderation variables, namely the MBKM Policy, makes a greater contribution in explaining the variability of HR Character. In this context, the MBKM policy has proven to be effective in strengthening the relationship between the SDGs and the character of human resources, which previously showed a significant influence. This increase in R^2 shows that the model involving moderation is able to accommodate external factors (MBKM policies) that play a role in strengthening the relationship between the SDGs and the character of human resources.

Furthermore, the increase in R^2 from 0.52 to 0.62 indicates that the MBKM policy has succeeded in strengthening the relationship between the SDGs and the character of human resources, so that this model is better able to explain the variation of human resource characters. This shows that without moderation, the relationship between the SDGs and the character of human resources is not optimal. However, after the MBKM policy was included, the contribution of the moderation variable was able to clarify the relationship, increase R^2 and show the effectiveness of moderation in this study.

Table 5. Moderation Test

Variable	Interaction (SDGs x MBKM)	Koefisien	p-value	Explanation
Moderation	Positif	0.20	0.0001	Signifikan (Moderatoni Exists)

The results of the analysis showed that the interaction variable (SDGs x MBKM) had a moderation coefficient of 0.20 with a p-value of 0.0001, which showed significant results. This means that the MBKM policy plays a role as a moderation variable that strengthens the relationship between the SDGs and the character of human resources. These results show that without moderation, the relationship may not be strong enough, but with the MBKM policy, the relationship becomes stronger and more significant. Therefore, this moderation proved to be effective in increasing the model's contribution and better explaining the variation of HR characters.

Furthermore, the results of significant t-statistics show that the MBKM policy is able to moderate the relationship between the SDGs and the character of human resources. A moderation coefficient of 0.20 indicates that MBKM policies strengthen the positive impact between the SDGs and HR character, which suggests that this variable contributes to improving the predictability of the model. Thus, MBKM policy moderation is very important in strengthening the linkage between the SDGs and the formation of human resource character, which shows the relevance and impact of the policy in the context of higher education.

4. Results and Discussion

SDGs have a positive and significant effect on the character of human resources (Path Coefficient = 0.45, $p < 0.001$). The MBKM policy also had a positive effect on the character of human resources (Path Coefficient = 0.30, $p < 0.001$). The MBKM policy moderated the relationship between SDGs → HR Character significantly (Path Coefficient = 0.20, $p = 0.001$), indicating that this policy strengthens the relationship. The R^2 value increased from 0.52 to 0.62 after considering moderation, indicating that the moderation model made a greater contribution in explaining the variability of HR Characters

5. Conclusion

The results of the study show that the Independent Learning-Independent Campus (MBKM) policy has a significant positive influence on the formation of human resource (HR) character. This shows that the implementation of the MBKM policy is able to make a real contribution to the development of student values and abilities that support the formation of superior human resource character. In addition, the MBKM policy has been proven to moderate the relationship between the Sustainable Development Goals (SDGs) and the character of human resources significantly. This moderation role strengthens the influence of the SDGs on the formation of human resource character, which reflects the importance of integrating higher education policies with the global sustainability agenda.The increase in the R^2 value from 0.52 to 0.62 after considering the role of moderation shows that the model with MBKM policy as a moderation variable is better able to explain the variability of HR characters. Thus, the MBKM policy not only plays a direct role in strengthening the character of human resources but also strengthens the relationship between the SDGs and the formation of this character. This conclusion emphasizes the importance of implementing the MBKM policy as a strategy to support the achievement of the SDGs in the context of higher education. This policy has the potential to produce graduates who have superior character, are competitive, and have a strong sustainability insight.

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