



An Analysis of the Factors that Encourage Students to Participate in the Student Exchange Program at Buana Perjuangan University, Karawang

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Abstract

Student mobility through student exchange programs plays a vital role in enhancing the quality of higher education, yet participation among students from non-metropolitan universities remains relatively low. This study aims to analyze the motivational factors that encourage students at Buana Perjuangan University Karawang to participate in the student exchange program within the framework of the Merdeka Belajar Kampus Merdeka (MBKM) policy. Five variables were examined: academic experience, skill enhancement, career opportunities, personal development, and cultural exchange. Using a quantitative approach, data were collected from 140 students through an online questionnaire and analyzed with Exploratory Factor Analysis (EFA) using SPSS 21. The findings reveal that all five variables converge into a single dominant construct, with a KMO value of 0.903, factor loadings above 0.80, and variance explained of 78.64%. This finding highlights that students' motivation in non-metropolitan contexts tends to be holistic rather than fragmented, distinguishing it from prior studies conducted in metropolitan settings. The results provide new insights into the integrated nature of student motivation and offer practical implications for universities in formulating strategies to enhance participation in the student exchange program.

1. INTRODUCTION

Higher education serves as a fundamental pillar in the development of high-quality and competitive human resources. Student mobility, particularly in the form of a student exchange program, has become a key strategy for enhancing the quality of higher education in the era of globalization. Student exchange programs not only provide students with opportunities to gain cross-cultural learning experiences but also encourage the development of global competencies, independence, and international networks that are essential in today's workforce [1], [2]. In Indonesia, student exchange initiatives have progressed substantially and are now considered a vital component of the national higher education strategy, especially through the Merdeka Belajar Kampus Merdeka (MBKM) program initiated by the Ministry of Education, Culture, Research, and Technology [3].

Student exchange programs, whether conducted domestically or internationally, enable participants to expand their academic and personal experiences beyond the boundaries of their home institutions. These programs are believed to enhance soft skills, develop professional networks, and foster adaptive character traits in response to global dynamics [4]. However, despite the various benefits offered, student participation in student exchange programs remains relatively low, especially among students from non-metropolitan or rural higher education institutions. This phenomenon is of particular concern, as limited participation can hinder equitable access to quality education and inclusive academic mobility [5], [6].

Numerous factors influence students' decisions to participate in a student exchange program. Previous studies have shown that academic factors do not solely drive such decisions, but are also influenced by personal aspects such as intrinsic motivation, curiosity, and self-confidence; social factors such as support from family and peers; as well as institutional aspects, including access to information, funding opportunities, and the support mechanisms provided by the university [7], [8]. In addition, students' perceptions of the long-term benefits of the student exchange program, such as career advancement and personal development, also play a critical role [9], [10]. The implementation of MBKM has significantly influenced students' interest and engagement [11], [12]. [13] identified supporting factors, including internal socialization, learning innovation, institutional support, and cross-sector collaboration. [14] reported that the implementation of Kampus Merdeka and student perceptions of MBKM contributed 52.5 % to their interest in participating in the program.

This study contributes a novel perspective by employing Exploratory Factor Analysis (EFA), which reveals that five motivational variables, academic experience, skill enhancement, career opportunities, personal development, and cultural exchange, are not independent but instead converge into a single dominant construct. This finding provides a fresh perspective by demonstrating that students' motivation at a non-metropolitan university such as Buana Perjuangan University Karawang tends to be holistic rather than fragmented. Unlike prior research focusing on isolated variables or metropolitan universities, this study highlights the integrated nature of motivation in a regional higher education context, thus offering both theoretical and practical contributions to the literature on student exchange.

Previous research has explored various factors that affect student participation in a student exchange program. [14] emphasized students' perceptions of long-term career benefits, while [15] highlighted the role of institutional support and socialization. Similarly, studies in international contexts indicate that intrinsic motivation, achievement goals, and cultural curiosity play significant roles [9], [16]. However, most of these studies were conducted at metropolitan universities or in cross-national contexts, which may not fully reflect the conditions of non-metropolitan universities in Indonesia.

Other scholars reported that MBKM implementation increased creativity, independence, and intercultural awareness [4], [5] Yet, challenges such as financial limitations and unequal access remained barriers [17]. [18] further noted that institutional contexts significantly shape inequalities in study abroad intent, underscoring the importance of examining exchange participation at universities with limited exposure.

The research gap lies in the absence of studies that integrate multiple motivational variables into a single framework, particularly within non-metropolitan universities. While prior studies tend to analyze factors separately (e.g., academic benefits, financial support, or cultural exposure), few have systematically tested whether these dimensions form an integrated construct of student motivation. By applying Exploratory Factor Analysis (EFA), this study addresses that gap, offering an empirical model that captures the holistic nature of student motivation in a regional Indonesian university context.

2. RESEARCH METHOD

This study applied a quantitative research design with an exploratory and descriptive approach. The primary objective was to identify and analyze the motivational factors influencing students at Universitas Buana Perjuangan Karawang to participate in student exchange programs. Data were collected using an online questionnaire distributed to 140 active students, selected through purposive sampling, with the criteria of students who understood or had the potential to participate in student exchange programs.

The research instrument was developed based on five main constructs: Academic Experience (X1), Skill Enhancement (X2), Career Opportunities (X3), Personal Development (X4), and Cultural Exchange (X5). Each construct was measured using 4–6 items on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Example items include:

1. Academic Experience: "Participation in exchange programs improves my academic performance."
2. Skill Enhancement: "Exchange programs help me acquire new skills relevant to my field."
3. Career Opportunities: "Exchange programs increase my chances of career advancement."
4. Personal Development: "Joining an exchange program improves my self-confidence."
5. Cultural Exchange: "Student exchange programs provide opportunities to learn new cultures."

Most items were adapted from previous studies on student motivation and mobility (Wang, 2022; Yue, 2022), and adjusted to the local context of Universitas Buana Perjuangan Karawang. Instrument validity was ensured through expert judgment by two lecturers in education management and international programs.

Before being distributed to the main respondents, the instrument was pilot-tested with 30 students who were not included in the main sample. The pilot test aimed to evaluate item clarity, assess face and content validity, and perform an initial reliability check. Recent methodological guidance supports that a pilot sample size of around 30 respondents is sufficient to determine questionnaire reliability [20]. [21] The survey instrument was also validated using 30 respondents, yielding adequate reliability results. After minor revisions based on pilot results, the final questionnaire was administered to the 140 main respondents, whose data were used in the Exploratory Factor Analysis (EFA).

For data analysis, Exploratory Factor Analysis (EFA) was employed using SPSS version 21. EFA was chosen over Confirmatory Factor Analysis (CFA) because the aim of this study was exploratory in nature—to uncover the underlying factor structure of multiple motivational variables without assuming a predetermined model. EFA is particularly appropriate when the relationships among variables are uncertain [22], while CFA is more suitable for hypothesis testing and model fit evaluation [23]. Thus, the use of EFA is justified to identify the latent construct of student motivation in the non-metropolitan context of UBP Karawang.

Based on the results of the Exploratory Factor Analysis (EFA), the five motivational variables, academic experience, skill enhancement, career opportunities, personal development, and cultural exchange, were found to converge into a single dominant factor. This unified construct is labeled as the Holistic Motivation Factor, reflecting the integrated nature of students' motivation in the non-metropolitan university context.

3. RESULTS AND DISCUSSION

Based on the theoretical discussion and explanation presented in the previous section, the conceptual framework for this study can be formulated. The research titled "*An Analysis of the Factors that Encourage Students to Participate in Student Exchange Program at Buana Perjuangan University, Karawang*" aims to identify and analyze various factors that influence students' decisions to participate in the student exchange program.

The conceptual framework provides a theoretical basis for examining the connections among the variables under investigation and acts as a guideline for constructing research instruments, performing data analysis, and interpreting the findings. In line with this, the framework aims to systematically illustrate the key factors that influence student participation in student exchange programs, taking into account individual, institutional, and external dimensions.

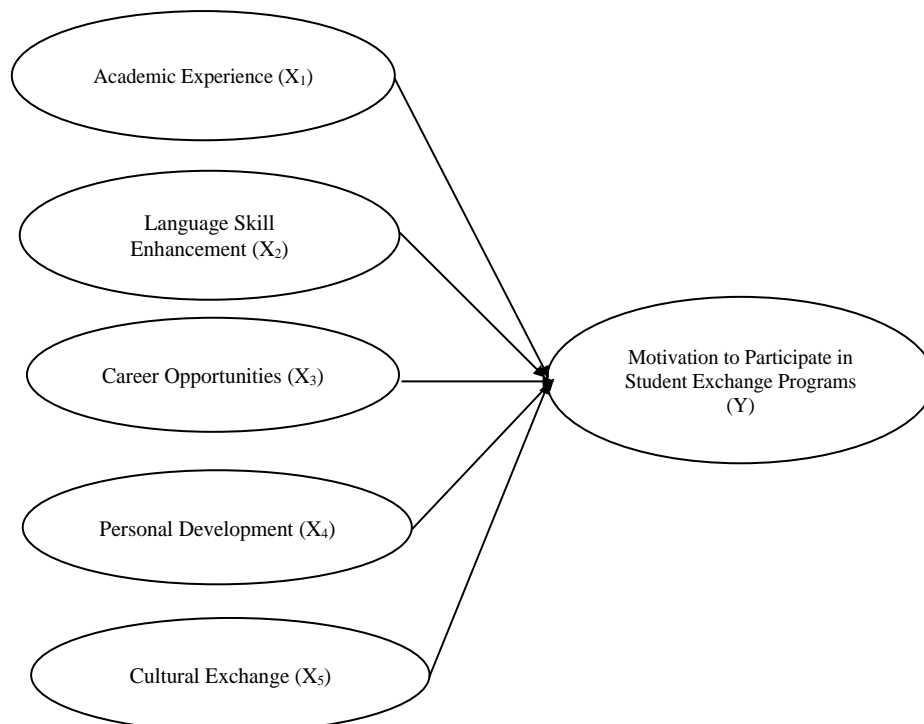


Figure 1. Conceptual Framework of the Study

Description:

1. H1: Academic experience (X1) is hypothesized to have a significant effect on students' motivation to engage in a student exchange program (Y).
2. H2: Skill enhancement (X2) is proposed to positively influence students' motivation to take part in the student exchange program (Y).
3. H3: Career opportunity factors (X3) are expected to impact the motivation of students to participate in the student exchange program (Y).
4. H4: Personal development (X4) is assumed to contribute to the motivation of students in joining the student exchange program (Y).
5. H5: Cultural exchange (X5) is believed to play a role in shaping students' motivation to engage in a student exchange program (Y).

3.1 Results

This research utilizes Exploratory Factor Analysis (EFA) to examine the underlying dimensions of five core variables presumed to affect students' decisions at Universitas Buana Perjuangan Karawang in joining the student exchange program. The analytical process was executed using SPSS version 21 and followed several key steps:

3.1.1. Kaiser-Meyer-Olkin (KMO) Measure and Bartlett's Test of Sphericity

An initial diagnostic was performed to assess the adequacy of the dataset for factor analysis through the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's Test. The KMO measure resulted in a value of 0.903, which significantly exceeds the recommended minimum of 0.50, indicating excellent sampling adequacy for factor extraction. As noted by Hair et al. (2010), KMO values above 0.90 are considered "marvelous," suggesting the data is well-suited for factor analysis. Additionally, Bartlett's Test produced a Chi-Square value of 547.345 with a significance level of 0.000 ($p < 0.05$), demonstrating sufficient intercorrelations among variables and confirming that the assumptions for conducting factor analysis were met.

Table 1. KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.903
Bartlett's Test of Sphericity	Approx. of Chi-Square	547.345
	df	10
	Sig.	0.000

3.1.2. Anti-Image Correlation Test

The next test involved examining the Anti-Image Correlation values, also known as the Measure of Sampling Adequacy (MSA), for each variable. The MSA values for all variables exceeded 0.50, detailed as follows: X1 = 0.887; X2 = 0.922; X3 = 0.901; X4 = 0.902; and X5 = 0.904. These results indicate that each variable is adequate and can validly contribute to the formation of new factors.

Table 2. Anti-image Matrices Test

Variabel	Nilai Anti-Image Correlation	Nilai Acuan	Kesimpulan
X1	.887 ^a	0,50	Measure of Sampling Adequacy (MSA) Terpenuhi
X2	.922 ^a		
X3	.901 ^a		
X4	.902 ^a		
X5	.904 ^a		

3.1.3. Communalities Analysis

The communalities analysis was conducted to determine the proportion of variance in each variable that the extracted factor can explain. The results show that all variables have extraction values above 0.70, specifically: X1 = 0.821, X2 = 0.719, X3 = 0.812, X4 = 0.773, and X5 = 0.807. These findings indicate that all variables contribute strongly and meaningfully to the formation of the construct and reflect a high degree of interrelation among indicators within the extracted factor.

Table 3. Communalities Analysis

Communalities		
	Initial	Extraction
X1	1.000	0.821
X2	1.000	0.719
X3	1.000	0.812
X4	1.000	0.773
X5	1.000	0.807

Extraction
 Method:
 Principal
 Component
 Analysis.

3.1.4. Total Variance Explained

The Total Variance Explained table indicates that only one principal factor was extracted, with an eigenvalue of 3.932. This factor accounts for 78.643% of the total variance in the data. This finding suggests that more than three-quarters of the overall information from the five variables can be explained by a single underlying construct. According to Ghozali (2016), if a factor explains more than 60% of the variance, it is considered to have a strong and stable contribution in representing the studied construct.

Table 4. Total Variance Explained

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings	% of Variance	Cumulative %
	Total	% of Variance	Cumulative %			
1	3.932	78.643	78.643	3.932	78.643	78.643
2	0.371	7.426	86.069			
3	0.250	4.999	91.068			
4	0.236	4.723	95.791			
5	0.210	4.209	100.000			

Extraction
 Method:
 Principal
 Component
 Analysis.

3.1.5. Component Matrix

The results of the component matrix reveal that all variables have high factor loading values, each exceeding 0.80. Specifically, X1 = 0.906; X2 = 0.848; X3 = 0.901; X4 = 0.879; and X5 = 0.899. These results indicate that all five variables are strongly associated with the extracted factor and contribute consistently to the primary construct under analysis. The high factor loading values suggest that the variables are not only valid but also interconnected in representing the underlying motivations of students to participate in the exchange program.

Table 5. Component Matrix^a
Component Matrix^a

	Component 1
X1	0.906
X2	0.848
X3	0.901
X4	0.879
X5	0.899

Extraction Method:
Principal Component
Analysis.
a. 1 components
extracted.

3.2 Discussion

The findings of this research reveal the presence of a predominant factor that significantly shapes students' decisions to engage in the student exchange program at Universitas Buana Perjuangan Karawang. This conclusion is supported by the results of an Exploratory Factor Analysis (EFA), which confirmed the appropriateness of the dataset for factor extraction, indicated by a notably high Kaiser-Meyer-Olkin (KMO) value of 0.903 and a statistically significant outcome in Bartlett's Test of Sphericity ($p < 0.05$). The analysis further shows that all five motivational variables, academic experience, skill enhancement, career opportunities, personal development, and cultural exchange, converge into a single dominant construct with high factor loadings (>0.80) and a variance explained of 78.64%.

The emergence of a single dominant factor, identified as the Holistic Motivation Factor, demonstrates that students' motivation to join exchange programs in a non-metropolitan setting is not fragmented but comprehensive. This factor captures the simultaneous influence of academic, personal, career, and cultural dimensions, emphasizing the integrated structure of motivation within regional higher education institutions.

This result offers a notable contribution to the existing literature, as previous studies generally examined motivational variables in isolation or emphasized single factors such as institutional support [15] or career [14] benefits. Unlike those fragmented perspectives, the findings of this study demonstrate that in the context of a non-metropolitan university such as Buana Perjuangan University Karawang, student motivation is holistic and integrative. This indicates that students perceive exchange programs not as separate academic, personal, or cultural opportunities, but as a comprehensive experience that simultaneously fulfills multiple dimensions of growth.

These findings contribute to the state of the art by highlighting that the structure of motivation in non-metropolitan universities differs from that in metropolitan contexts, where access to resources, exposure to international networks, and institutional readiness may lead to more differentiated motivational patterns [9], [18]. In contrast, the holistic motivational construct identified in this study suggests that universities in regional areas need to design policies and promotional strategies that address academic, career, and personal development benefits in an integrated manner.

By integrating multiple perspectives into a single construct, this research not only enriches the theoretical understanding of student motivation in exchange programs but also provides practical implications. Higher education institutions, particularly those outside metropolitan areas, should adopt a systemic approach to promoting student mobility through comprehensive socialization, financial support, intercultural preparation, and career counseling rather than focusing narrowly on one dimension of benefit.

4. CONCLUSION

This study concludes that student motivation to participate in exchange programs at Universitas Buana Perjuangan Karawang is characterized by a single, holistic construct that integrates five dimensions: academic experience, skill enhancement, career opportunities, personal development, and cultural exchange. This study provides empirical evidence contributing a novel perspective, obtained through Exploratory Factor Analysis (EFA), showing that these variables do not operate independently but converge into a unified factor. This finding distinguishes the study from prior research that analyzed motivational variables separately or focused on metropolitan universities.

By addressing the research gap regarding student motivation in non-metropolitan universities, this study expands the state of the art in the literature on student mobility. The integrated nature of motivation identified here suggests that policies and strategies for encouraging exchange participation should be designed holistically, combining academic, institutional, and personal support mechanisms.

Practically, the results offer guidance for university stakeholders to develop systemic strategies that simultaneously address students' academic growth, skill development, career aspirations, and intercultural experiences. Future studies are recommended to further explore potential barriers, such as financial limitations or cultural adaptation challenges, to complement the holistic motivational model proposed in this research.

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