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Factors Influence of Residents to Work Abroad (Case Study: Klungkung Regency, Bali Province, Indonesia)

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ABSTRACT: The purpose of this study was to determine the factors that influence residents to work abroad. The data used in this study are primary data obtained by distributing questionnaires to residents of Klungkung Regency who work abroad. Factor analysis is used to analyze the research data. The research variables include: limited employment opportunities, low income in the area of origin, opportunities to get better income, wide and diverse employment opportunities, encouragement from parents, getting better education/skills opportunities, the existence of interesting activities or places in the destination area, invitations from relatives or siblings, many family members in the destination country, transportation costs, living costs, and other costs that are obstacles to the destination area, the distance between the area of origin and the destination area is an option in choosing the destination country. The results of the study showed that there were three factors that influenced respondents to work abroad, these factors were: 1) economic factors with an eigenvalue of 2.373 and a variance of 29.665%, 2) individual factors with an eigenvalue of 1.956 and a variance of 24.445%, 3) destination factors with an eigenvalue of 1.281 and a variance of 16.013. The total variance that could be explained from the three factors formed was 70.124%. The most influential dominant factor was the economic factor which was able to explain 29.665%.

KEYWORDS: Factor analysis, economic factors, working abroad, Klungkung Regency

INTRODUCTION

Humans are economic creatures who always try to fulfill their needs by working. Work has a very important meaning in human life. The meaning and importance of work for everyone is reflected in the 1945 Constitution of the Republic of Indonesia Article 27 paragraph (2)[1] which states that every Indonesian citizen has the right to work and a decent living for humanity. However, in fact there are still limitations in job vacancies in the country, which results in most people choosing to migrate abroad [2]. The smallest regency in terms of area in Bali Province, Indonesia is Klungkung Regency, with an area of 315.00 km^2[3]. Based on data from the Central Statistics Agency of Klungkung Regency, the population of Klungkung Regency increases every year. In addition, the number of workers in Klungkung Regency increases every year [4][5].

With a relatively small area with a population that continues to increase and also a workforce that increases every year by a large amount, it causes competition to get a job in Klungkung Regency to be difficult. This situation causes some residents to decide to work abroad.

Todaro (1979) in Mantra [6] stated that the reason someone moves is because of economic motives. When doing mobility, there are two main goals to be achieved, namely getting a job and increasing income. In addition to economic factors, Lee [7] stated that factors of origin, destination factors, obstacle factors, and personal factors influence residents to migrate.

According to Urbański [8], the factors that influence people to migrate are economic factors such as higher wage prospects, better living standards, developing skills, job opportunities, good welfare standards, and demand for labor have the highest influence on migration.

The formulation of the problem in this study is to find out what factors influence people to work abroad and to find out which factors are most dominant in influencing people to work abroad.The purpose of this study is to find out what factors can influence people to work abroad and to find out what factors are dominant in influencing people to work abroad.

Based on the theory of migration, a lot of information is obtained regarding the factors that influence people to work abroad. One method that can determine what factors influence residents to work abroad is by using the factor analysis method. The method used in this study is exploratory factor analysis. Therefore, in this study, samples will be taken from several residents of Klungkung Regency who work abroad.

II. METHODS

Sampling in this study was conducted in Klungkung Regency, Bali Province, Indonesia. The time from sampling to data processing was carried out for 3 months. The sample in this study were several residents of Klungkung Regency who worked abroad. This study used primary data obtained by survey method by distributing questionnaires to 100 respondents. The research questionnaire used a Likert scale type, with answer options: (1) strongly agree, (2) agree, (3) quite agree, (4) disagree, (5) strongly disagree.
The variables used in this study include several variables, namely:

1. Respondent characteristic variables, namely $X_1, X_2, X_3, X_4, X_5, X_6, X_7$ dan X_8.
2. The variables that influence residents to work abroad are described in variables $X_9, X_{10}, X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}$, X_{18} dan X_{19}.

Table 2.1 Research Variables

Variables	Indicator	Measurement Scale
X_1	Age	Ratio
X_2	Gender	Nominal
X_3	Education	Nominal
X_4	Marital status	Nominal
X_5	Number of family dependents	Ratio
X_6	Jobs in the area of origin	Nominal
X_7	Jobs in the destination area	Nominal
X_8	Income	Ratio
X_9	Limited employment opportunities	Ordinal
X_{10}	Income in the area of origin is low	Ordinal
X_{11}	The opportunity to earn better income	Ordinal
X_{12}	Wide and varied job opportunities	Ordinal
X_{13}	Encouragement from parents	Ordinal
X_{14}	Get better education/skills opportunities	Ordinal
X_{15}	The existence of interesting activities or places in the destination area	Ordinal
X_{16}	Invitation from relatives or siblings	Ordinal
X_{17}	Many family members in the destination country	Ordinal
X_{18}	Transportation costs, living costs, and so on become obstacles to reaching the destination area.	Ordinal
X_{19}	The distance between the area of origin and the destination area is an option in choosing the destination country.	Ordinal

a. Validity Test and Reliability Test of Research Questionnaires

Validity test is a test to show the validity of an instrument in measurement. To what extent does one variable or group of variables (construct validity) accurately represent the research concept that is free from systematic errors [9]. How to measure validity by looking for the correlation between each score and the total score using the product moment correlation technique. With α of 5%, if r count> r table then the question items on the questionnaire are said to be valid. While the reliability test is a test that measures how consistent a variable or group of variables is with what is measured [9]. In this study, reliability was measured using the cronbach-alpha formula. The decision criteria for a questionnaire are said to be reliable if the cronbach-alpha value is ≥ 0.7, if α is less than 0.7 the questionnaire is said to be unreliable [9].

b. Factor analysis

Wichern [10] explains that before analyzing data using factor analysis, it is necessary to test the basic assumptions to determine whether the data is suitable or not for using factor analysis. Factor analysis involves several steps, such as testing the correlation matrix, factor formation, and factor rotation. Testing the correlation matrix for factor analysis is carried out with three statistical tests, namely the Kaiser-Mayer Olkin (KMO) test, the Bartlett's test of sphericity, and the measure of sampling adequacy (MSA) test. After that, factor extraction will be carried out, where the factor extraction used is principal component analysis (PCA) which aims to obtain a number of factors. Factor rotation aims to facilitate interpretation in determining the variables listed in the factors, and finally the interpretation of the dominant factors is carried out.

In the validity test, the data is said to be valid if the correlation coefficient value is ≥0.361. While the data reliability test is said to be reliable if the cronbach-alpha value is ≥0.7.

In the Kaiser-Mayer Olkin (KMO) test, factor analysis is used to determine the feasibility of the data. Research data can be considered suitable for analysis using factor analysis if the KMO value is ≥0.5. The Bartlett Of Sphericity test is used to determine the correlation between variables. The significant decision criteria of the Bartlett of Sphericity test p-value <0.05.

The Measure of Sampling Adequacy (MSA) test aims to determine the feasibility of the variables analyzed by factor analysis. The MSA value that is said to be feasible is ≥0.5. If the variable has a value <0.5, then the variable will be eliminated from the factor analysis. Communality is the variety of the original variable given by all the factors formed. The communality value criteria used are ≥0.5. If the communality value is <0.5, then the indicator should be removed from the analysis [11]

Factor extraction is a technique to reduce data from several indicators into fewer factors and is able to explain the correlation between indicators. In determining the number of factors for the principal component analysis method, the eigenvalue criterion can be used. Only factors that have latent roots or eigenvalues >1 are considered significant, so factors with latent roots <1 are considered insignificant and ignored.

Factor rotation is done to facilitate interpretation in determining which variables are included in a factor. Hair et al. [9] stated that factor rotation is a very important tool in interpreting factors. In factor analysis, there are two types of rotation, namely orthogonal rotation and oblique rotation. The next step is the interpretation of the results obtained. As the expected results of factor analysis in this study, namely to reduce the initial variables into a group of new variables with a smaller number than the initial variables. Hair et al. [9] revealed another way to determine the level of significance of the loading factor is to determine the number of samples analyzed. This study used 100 samples so that the factor loading value used was 0.55. Furthermore, after the factor solution can be accepted by having a significant factor loading value, the next stage is naming the factors that have been formed. Variables that have high loading values will have a major influence on the name to represent the factor.

III. RESULT AND DISCUSSION

Testing the validity and reliability of the questionnaire was carried out by distributing questionnaires to residents of Klungkung Regency who work abroad. The validity test was carried out with the calculated r value compared to the r table, with α of 5%. If the calculated r> r table then the question item is said to be valid. The validity test was carried out with 30 data first, with a value> 0.361.

Table 3.1 Validity Test

Variables	Correlation coefficient
X_9	0.553
X_{10}	0.544
X_{11}	0.754
X_{12}	0.574
X_{13}	0.775
X_{14}	0.510
X_{15}	0.708
X_{16}	0.497
X_{17}	0.607
X_{18}	0.721
X_{19}	0.611

Based on table 3.1, it is known that all variables are declared valid, because the correlation coefficient value obtained is >0.361. Next, a reliability test will be carried out, the results of the reliability test are said to be reliable if the cronbach-alpha value is ≥0.7, if the α value is less than 0.7 then it is said to be unreliable [5].

Tabel 3. 1 Reliability Statistic

cronbach-alpha	*N of items*
0.836	1

Based on table 3.2, the cronbach-alpha coefficient value is 0.836, which shows that the cronbach-alpha value is ≥0.7. So that the results of measuring the variables against 30 data produce valid and reliable data.

3.1 Factor Analysis

Research data can be considered suitable for analysis using factor analysis if the values KMO > 0.5. While the Bartlett test H_0 accepted if the value $sig > \alpha = 0{,}05$. H_0 rejected if the value $sig < \alpha = 0{,}05$.

Table 3.3 Results of KMO Test and Bartlett Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.714
Bartlett's Test of Sphericity	Approx. Chi-Square	407.755
	df	55
	Sig.	0.000

In table 3.3 the data results obtained that the KMO value> 0.5 is 0.714, so the data is said to be feasible to be carried out using factor analysis. While the calculation results obtained from the Bartlett test value are 0.000, then the analysis data has a correlation between its variables and the matrix is not an identity matrix.
The MSA value is said to be feasible if the Anti-image Correlation value> 0.5.

Table 3.4 Value of Measure of Sampling Adequacy (MSA)

Variabel	***Anti-image Correlation***
X_9	0.650
X_{10}	0.653
X_{11}	0.714
X_{12}	0.746
X_{13}	0.745
X_{14}	0.692
X_{15}	0.755
X_{16}	0.745
X_{17}	0.724
X_{18}	0.713
X_{19}	0.679

In table 3.4, it is known that the MSA values of each variable have an Anti-image Correlation value > 0.5 so that they meet the criteria of the MSA value.
Communality is basically the amount of variance of a variable that can be explained by the existing factors.

Table 3.5 Communality Value

Communalities		
	Initial	***Extraction***
X_9	1.000	0.700
X_{10}	1.000	0.665
X_{11}	1.000	0.723
X_{12}	1.000	0.696
X_{13}	1.000	0.818
X_{14}	1.000	0.762
X_{15}	1.000	0.615
X_{16}	1.000	0.481
X_{17}	1.000	0.647
X_{18}	1.000	0.563
X_{19}	1.000	0.499

Extraction value <0.5 is considered unimportant or does not have sufficient explanation so that variables that have extraction value <0.5 are removed from the analysis. Based on table 3.5, the communalities value of X_{16} and $X_{19} < 0.5$, then both variables are removed from the analysis. Furthermore, the analysis is carried out from the initial step and the new communalities results are obtained.

Table 3.6 Results of Communality Values without X_{16} and X_{19}

Communalities		
	Initial	Extraction
X_9	1.000	0.702

X_{10}	1.000	0.664
X_{11}	1.00	0.724
X_{12}	1.000	0.716
X_{13}	1.000	0.324
X_{14}	1.000	0.746
X_{15}	1.000	0.699
X_{17}	1.000	0.705
X_{18}	1.000	0.513

Based on table 3.6 extraction value $X_{13} < 0.5$ then the variable is removed from the analysis. Next, the analysis is carried out from the initial step and the new communalities results are obtained.

Table 3.7 Results of Communality Values without X_{13}

	Communalities	
	Initial	*Extraction*
X_9	1.000	0.702
X_{10}	1.000	0.664
X_{11}	1.000	0.724
X_{12}	1.000	0.716
X_{13}	1.000	0.324
X_{14}	1.000	0.746
X_{15}	1.000	0.699
X_{17}	1.000	0.705
X_{18}	1.000	0.513

Based on table 3.7, all variables have an extraction value >0.5, so they can proceed to the next stage.
The principal component analysis method or also known as principal component analysis (PCA) is a method that can be used to run factor extraction. In determining the number of factors for the principal component analysis method, the eigenvalue criterion can be used.

Table 3.8 Results of Values Total Variance Explained

Initial Eigenvalues			
Component	**total**	**% of Variance**	**Cumulative %**
1	2.373	29.665	29.665
2	1.956	24.445	54.111
3	1.281	16.013	70.124
4	0.659	8.239	78.363
5	0.551	6.888	85.25
6	0.481	6.010	91.261
7	0.418	5.223	96.484
8	0.281	3.516	100.000

In table 3.8, it can be seen that there are three variables that have eigenvalues of more than 1, so it can be interpreted that there are three new factors formed from the eight variables analyzed. Of the three factors formed, they are able to explain 70.124% of the variance.
Component matrix can determine the contribution of variables to the factors formed. Distribution of variables in table 3.9 component matrix before varimax rotation.

Table 3.9 Results of Component Matrix

Component Matrix			
	1	2	3
X_9	0.496	-0.490	0.463
X_{10}	0.499	-0.576	0.291
X_{11}	0.646	-0.528	-0.234

X_{12}	0.712	-0.043	-0.532
X_{14}	0.448	0.500	-0.562
X_{15}	0.441	0.605	0.382
X_{17}	0.367	0.644	0.404
X_{18}	0.651	0.268	0.140

Based on the results in table 3.9, variable X_9 has a loading factor on component 1, component 2, and component 3 of 0.496, -0.490, and 0.463. If so, then variable X_9 it is not yet clearly seen to be strongly correlated with component 1, component 2, or component 3. So the interpretation of the variable cannot be done. If this happens, the factor matrix needs to be rotated so that one variable is only correlated with one factor.

Table 3.10 Component Matrix After Rotation

Rotated Component Matrix			
	1	2	3
X_9	0.823	0.133	-0.068
X_{10}	0.814	-0.013	0.055
X_{11}	0.646	-0.175	0.550
X_{12}	0.219	0.047	0.861
X_{14}	-0.327	0.286	0.761
X_{15}	-0.011	0.839	0.055
X_{17}	-0.072	0.841	-0.005
X_{18}	0.245	0.580	0.344

The rotation results in table 3.10 component matrix after rotation show that all variables have factor groups.

3.2 Factor Interpretation

Factor interpretation is done by giving a name to each factor according to the variables that are grouped in a particular factor. The three factors can be interpreted as follows:

a. Factor naming

Factor naming can be a new name that can represent the variables that are members or from the name of one of the variables that build the factor. The following is the naming for each factor that is formed:

1. Factor 1 is named: Economic Factor

Consists of variables of limited employment opportunities, low income in the area of origin, and opportunities to get better income.

2. Factor 2 is named: Pull Factor

Consists of variables of activities or interesting places in the destination area, many family members in the destination country, and transportation costs, living costs, and so on become obstacles to the destination area.

3. Factor 3 is named: Destination Area Factor

Consists of variables of wide and diverse employment opportunities and obtaining better education/skills opportunities.

b. Determination of the Most Dominant Factor

The way to determine the most dominant factor is by looking at the percentage of variance value in table 3.11, the total variance explained from the SPSS calculation. The highest percentage of variance value indicates that the factor is the most dominant factor.

Tabel 3.11 Total Variance Explained

Extracrion Sums of Squared Loadings			
Component			
	Total	% of Variance	Cumulative %
1	2.373	29.665	29.665
2	1.956	24.445	54.111
3	1.281	16.013	70.124

In table 3.11 it can be seen that factor 1, namely the pull factor, is the most dominant factor that influences the population to work abroad by 29.665%. The total is 70.123%. This can be interpreted that the income, distance, and destination factors can explain the reasons for the population to work abroad by 70.124%.

Research findings show that the dominant factor influencing residents to work abroad is economic factors. The findings of this

research are in line with research by Urbanski [8] which states that residents migrate due to economic factors. Todaro in Mantra [6], also stated that economic factors influence people to migrate.

IV. CONCLUSION

The results of the analysis using factor analysis obtained three factors that influence the population to work abroad, including: the first factor is the economic factor, the second factor is the pull factor, and the third factor is the destination area factor. The most dominant factor that has the most influence in influencing the population to work abroad is the economic factor.

Based on the results of the study, it is hoped that the Klungkung Regency government will be able to expand employment opportunities so that residents have the opportunity to get better income. Meanwhile, for further research, it is hoped that other methods can be applied besides the exploratory factor analysis method. Can use the confirmatory factor analysis method

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