Research Article

Quality Analysis and Key Factor Research in Japan’s Economic Growth Based on Factor Analysis

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Factor analysis is suitable for the conditions of complex correlation, large sample size, many influencing factors, and many selected indicators; able to conduct research on a variety of subjects; and can better apply multivariate statistical methods to the evaluation of financial performance. Among other common methods of evaluating financial performance, factor analysis methods can reduce dimensionality and simplify data basically design weights. Factor analysis can reduce the dimensionality of data even with large sample sizes. It avoids a lot of complicated calculations, reduces the difficulty of calculation, and solves the problem of overlapping factor information, reflecting the advantages of multivariate statistics. Based on the factor analysis method, this study analyzes the quality analysis and key factors in Japan’s economic growth: (1) integrity principle residents' financial risk is composed of multiple factors, not only unilateral factors but also the following factors: determine the influencing factors, select indicators, and identify risks and potential hazards. Financial risk itself is comprehensive, and the assessment of risk arising from a single factor is less important. (2) The requirements for the selected financial indicators are that the unit and order of magnitude should not only be accurate but also consistent, the financial information reflected by the selected financial indicators should be direct and clear, and financial data should be obtained in multiple ways, through annual reports and the Internet, to collect financial data. The analysis of financial performance based on scientific principles can show the current operating conditions, so the selection of financial indicators must be true, effective, and objective, so as to correctly reflect the real situation, and it is beneficial to combine the analysis results and carry out the following steps. (3) Financial risks may arise in the process of financing or in the process of investment. Financial risk in a broad sense is more in line with the characteristics of risk, and it arises in every link related to financial activities. The analysis is carried out in terms of financial risk in a broad sense. It can be seen that the economic quality scores were higher in 2011 and 2017. (4) Use several representative factors to replace the original variables for analysis, and explain the problems existing in the Japanese economy according to the results. The results show that the key factors of economic growth include gross national product, inflation, employment rate, and the balance of payments.

1. Introduction

With the development of the era of big data, the application of factor analysis has become wider and wider, and it can study a variety of objects and can better apply multivariate statistical methods to the evaluation of financial performance. Factor analysis is suitable for the conditions of complex correlation, large sample size, many influencing factors, and many selected indicators. Among other common methods of evaluating financial performance, factor analysis methods can reduce dimensionality and simplify data basically design weights. Factor analysis can reduce the dimensionality of data even with large sample sizes. It avoids a lot of complicated calculations, reduces the difficulty of calculation, and solves the problem of overlapping factor information, reflecting the advantages of multivariate statistics. It can objectively reflect the problem and has the characteristics of sample integrity and information integrity [1–3]. The basic idea of factor analysis is to group variables according to the size of the correlation and use software for analysis and processing, and it does not have subjective initiative. In the current era of rapid development of information technology, public factors are
described according to the weight of each variable, and the statistical analysis of economic data is heavy and boring. The factor analysis method provides convenient analysis conditions not only for financial staff but also for social, which lays the foundation for comprehensive development. The method of layer-by-layer reasoning proves the stability and gives the error analysis; each group of variables represents a basic structure, namely, the common factor. For the Stokes/Darcy model, the BDF2 tree-structured modular gradient divergence stable scheme is proposed, which takes into account a single evaluation index, also proves the stability and error estimation of the scheme, and realizes the final prediction. Nodes represent all datasets, and numerical experiments show that the format is indeed not affected by large parameters, which improves computational efficiency. Create subnodes for node characteristics and based on their values, reflecting the compound influence of multiple indicators on performance evaluation. The velocity-corrected projection method is divided into two substeps at each time step, and a new subnode velocity term is generated for each subnode in the same way. In the process of decision generation, it is revised [4–6]. After the decision is fully formed, some branches are removed actively; however, this method also has shortcomings. Due to the risk error of overfitting caused by system splitting, the accuracy will be reduced, and the nonphysical boundary conditions of pressure are introduced, and there is no correlation between different decision trees, which leads to the phenomenon of numerical boundary layer. In order to overcome the artificial pressure boundary condition, a rotation velocity correction projection method is proposed, which consists of multiple decisions. Correction of projection is based on rotational velocity for most decision tree classification results. Modular gradient divergence stabilization is not affected by large parameters, and random forest is more stable. We can combine the rotation velocity correction projection method and the modular gradient divergence stabilization method, use a supervised strong classifier, study the stability and error analysis of this combined method, find a hyperplane as the decision boundary, and use the numerical calculation example to verify the effectiveness of this method. Judging from the results of time evolution, the standard for measuring the quality of economic growth is the pros and cons. In recent years, the quality of urban economic growth in Japan has been significantly improved. To measure the quality of economic growth, the evolution of the distribution at the national city level shows a unimodal state; that is, the quality of economic growth at the city level does not appear in cities with higher and lower levels and different trends. The index system of the quality of economic growth at the provincial level is clarified, and the quality of economic growth at the three regional levels in the east, the middle, and the west presents a bimodal evolution state, which means that the convergence characteristics of economic growth are heterogeneous. Specifically, there may be a trend of club convergence. From the perspective of spatial evolution, the measurement indicators can be roughly divided into two types: total factor productivity and comprehensive indicator systems [7–10]. The spatial agglomeration effect of the quality of urban economic growth in Japan is significant, and the quality of urban economic growth in the whole region presents an agglomeration pattern of "high in the center and low in the periphery." When the total factor productivity is included in the comprehensive index system, the distribution of differences in the quality of economic growth in the central and western cities is relatively uniform, and there is no polarization phenomenon, but there is a trend of differential diffusion in the eastern region. The index system is constructed from three aspects of efficiency, stability, and economic structure. Compared with the quality level of economic growth in the eastern region, the convergence of the quality of economic growth in the central and western regions is still low. In the selection of efficiency dimension indicators, based on the empirical analysis of the convergence of the econometric model, the input-output angle and total factor productivity are combined. There is an absolute convergence trend of β in the whole domain. After controlling the initial conditions of economic individuals and including spatial factors, it is found that the spatial convergence trend of urban economic growth quality has strengthened, which is reflected by economic fluctuation indicators, environmental changes, and changes in people’s livelihood status. The corresponding convergence rate is significantly improved, and the convergence period is shortened [11–13]. The quality of economic growth needs to include economic scale, which can reflect the quantity of economic growth; that is, cities with similar structural characteristics and locations have a higher probability of economic convergence. From the perspective of different regions, the eastern region has the highest spatial convergence speed, which should also be included in the five aspects of economic structure, economic development potential, and final economic benefits, followed by the central region. From the perspective of index composition, for the single index of total factor productivity, its measurement at home and abroad has reached a relatively mature stage. The narrowing of the difference in the quality of economic growth is mainly due to the convergence of economic growth momentum and economic growth results. At present, it can be specifically classified into parametric and nonparametric methods and further subdivided into traditional residual methods and exponential methods. The agglomeration economy has a significant impact on the quality of urban economic growth, which can be combined with ordinary least squares estimation in the macro-dimension. In the microdimension, due to the existence of simultaneity error and sample selection bias, the spatial convergence rate of urban economic growth quality under the factor of industrial agglomeration has been significantly improved. It needs to be combined with the OP semiparametric estimation method [14, 15]. From the perspective of different regions, industrial agglomeration has the greatest effect on promoting the speed of spatial convergence in the western region. Potential output method includes data inclusion analysis method and stochastic frontier analysis method. The former mainly uses the Malmquist index to measure the change of efficiency and reflects the quality level of economic growth through the change difference. As for the horizontal method of comprehensive indicators of economic growth quality, since the indicator system covers a large number of indicators and a large amount of information, industrial agglomeration mainly achieves a positive effect on the convergence of economic growth quality by
promoting the convergence of economic growth modes and structures. Therefore, comprehensive indicators are used for measuring. The key lies in the extraction of each indicator information.

2. Factor Analysis

2.1. Implementation Ideas of Factor Analysis. In general, there are multiple indicators in the comprehensive analysis method in the analysis of variables, including profitability, operating ability, solvency, solvency, and development ability. Different indicators have different degrees of correlation, so there is repetitive information, and there are obvious differences in the process of analysis. In order to effectively overcome these obvious differences, factor analysis can effectively solve this problem. The analysis method divides the whole group of indicators into different individual groups according to the matrix, which is based on the principle of principal component analysis theory, and effectively reduces the repetition of information. Common factors exist in different groups, and the original indicators have different characteristics after being rotated by the factors. Different factor loading information can be obtained separately from different original indicators. The extraction of the weight coefficient of each different common factor is obtained by the variance contribution rate. Composite scores and one-way factor scores were obtained by a weighted average method. The economic evaluation index is shown in Figure 1.

2.2. The Connotation and Influencing Factors of the Quality of Economic Growth. For the definition of the connotation of the quality of economic growth, the improvement and optimization of the economic structure belong to the concept of structure. The modern economic growth system is endowed with a broader connotation, such as economic benefits and economic stability and natural and ecological balance, which reflect the meaning of the concept of quality. The connotation of the quality of economic growth can be said that the focus of the connotation is different depending on the research angle. In the past, scholars proposed based on the internal and external perspectives, the perspective of efficiency, and the characteristics of high-quality economic growth, etc., more based on a single perspective. The quality of economic growth should be a comprehensive index with rich connotations, and in recent years, it has a lot to do with the nature and characteristics of the quality of economic growth.
growth in the context of high quality. A more comprehensive, systematic, and staged explanation is presented. Comparing the quality and quantity of economic growth, what is the core of the quality of economic growth. The improvement of the quality of growth is due to the improvement of efficiency, the optimization of structure, the improvement of stability, the low cost of ecological environment, the better distribution of welfare, the improvement of innovation level, and some other factors in maintaining the sustainability of economic growth. The evaluation of social and environmental benefits brought about by growth is also one of the goals of the quality of economic growth. It is shown in Figure 2.

3. Algorithm Model

(A) PRINIT [16–20]

Select indicator

\[ A y_t = B_1 y_{t-1} + B_2 y_{t-2} + \cdots + B_s y_{t-s} + \mu_t, \] (1)

Factor analysis method

\[ \sum \sigma = \begin{pmatrix} \sigma_1^2 & 0 & \cdots & 0 \\ 0 & \sigma_2^2 & \cdots & 0 \\ \cdots & \cdots & \cdots & \cdots \\ 0 & 0 & \cdots & \sigma_k^2 \end{pmatrix}. \] (2)

Dimensionality reduction

\[ A = \begin{pmatrix} 1 & 0 & \cdots & 0 \\ a_{21} & 1 & \cdots & 0 \\ \cdots & \cdots & \cdots & \cdots \\ a_{k1} & a_{k2} & \cdots & 1 \end{pmatrix}. \] (3)

Quality of economic growth

\[ y_t = \Phi_1 y_{t-1} + \Phi_2 y_{t-2} + \cdots + \Phi_s y_{t-s} + A^{-1} \sum \epsilon_t, \] \[ a_{t+1} = a_t + \mu_{a_t}. \] (4)

Factor information overlap

\[ y_t = X_t \beta + A^{-1} \sum \epsilon_t, \] \[ \beta_{t+1} = \beta_t + \mu_{\beta_t}. \] (5)

Sample integrity

\[ h_{t+1} = h_t + \mu_{h_t}, \] \[ A \begin{pmatrix} \epsilon \\ \mu_{\beta_t} \\ \mu_{a_t} \\ \mu_{h_t} \end{pmatrix} \sim N \left( \begin{pmatrix} 0 \\ 0 \cdot \sum \beta \\ 0 \cdot \sum \alpha \\ 0 \cdot \sum h \end{pmatrix} \right). \] (6)

Principal [21–23]

\[ R_t = 100 \times \ln \left( \frac{Y_t}{Y_{t-1}} \right). \] (7)

Information integrity

\[ Y_1 = A_1 \times L_1^{1-\alpha} \times \sum_{j=1}^{N} (X_{ij})^\alpha. \] (8)

Common factor

\[ \frac{\partial Y_1}{\partial X_{ij}} = \alpha \times A_1 \times L_1^{1-\alpha} \times X_{ij}^{1-\alpha}. \] (9)
\[ X_{ij} = A_1^{1/(1-\alpha)} \times \alpha^{2/(1-\alpha)} \times L_1. \]  

(10)

Tree structure

\[ Y_1 = A_1^{1/(1-\alpha)} \times \alpha^{2/(1-\alpha)} \times N_1 \times L_1. \]  

(11)

Similar structural features

\[ \pi_{ij} = \frac{1-\alpha}{\alpha} \times A_1^{1-\alpha} \times \alpha^{2/(1-\alpha)} \times L_1. \]  

(12)

Gradient divergence stable scheme

\[ y_1 = \frac{1}{\theta} \times \left[ \frac{L_1}{\eta} \times \frac{1-\alpha}{\alpha} \times A_1^{1-\alpha} \times a^{2/(1-\alpha)} - \rho \right], \]  

(13)

\[ Y_2 = A_1 \times L_1^{1-\alpha} \times \sum_{j=2}^{N_i} (X_{ij})^a. \]

Node features

\[ x_{ij}' = \frac{x_{ij} - \min(x_{ij})}{\max(x_{ij}) - \min(x_{ij})}. \]  

(14)

System split

\[ S_i = \frac{x_{ij}}{\sum_{i=1}^{n} x_{ij}}, \]  

(15)

\[ e_j = -k \sum_{i=1}^{n} S_{ij} \ln(S_{ij}). \]

AHP [24–27]

\[ k = \frac{1}{\ln(n)}, \quad k \geq 0. \]  

(16)

Nonphysical boundaries

\[ w_j = \frac{d_j}{\sum_{i=1}^{m} d_j}. \]  

(17)
Efficiency dimension

\[ QEG_i = \sum_{j=1}^{m} w_j \times s_{ij}, \] (18)

Bimodal evolution

\[ d(\ln QEG_{it}) = \ln QEG_{it} - \ln QEG_{it-1} = \alpha + \beta \ln QEG_{it-1} + \epsilon_{it}. \] (19)

Productivity and composite indicators

\[ W'_{ij} = \frac{W^n_{ij}}{\sum_j W^n_{ij}}, \quad i \neq j. \] (20)

4. Simulation Experiment

4.1. Factor Loading Matrix. In the covariance vector matrix, the current assets, fixed assets, construction in progress, intangible assets, and noncurrent assets in a sample correlation vector are average values. The random sample vector of the random sample correlation vector assumes that the functions of monetary funds, accounts receivable, and prepayments are the main contents of the assets, and the covariance matrix of all sample variables is obtained by standardizing and normalizing all the data. The variance matrix is consistent with the same sample matrix. Then, the common load factors of different indicators (short-term loans, bills payable, accounts payable, advance receipts, and current liabilities) are rotated, and the way of rotation is to rotate 90 degrees. As shown in Table 1 and Figure 3, the common load factors show different quantification and different degrees of clarity in different indicators and can also effectively determine the number of load factors and load information of the common load factors in different indicators, so that the public index factors can be accurately and quickly determined. Integrity principal residents’ financial risk is composed of many factors, not only unilateral factors but also the following factors: determining influencing factors, selecting indicators, and discovering risks and potential dangers. Financial risk itself is comprehensive, and the assessment of risk arising from a single factor is less important.

4.2. Indicator Selection. The most important thing in the accurate and comprehensive evaluation of financial performance is to establish an evaluation index system suitable
for development. As shown in Table 2 and Figure 4, feasibility is the basis for data selection and data analysis. The requirements for the selected financial indicators are that the unit and order of magnitude should not only be accurate but also consistent, the financial information reflected by the selected financial indicators should be direct and clear, and financial data should be obtained in multiple ways, through annual reports and the Internet; the financial data is collected. The analysis of financial performance based on scientific principles can show the current operating conditions, so the selection of financial indicators must be true, effective, and objective, so as to correctly reflect the real situation, and it is beneficial to combine the analysis results and carry out the following steps.

**4.3. Economic Quality Analysis.** The way of debt-based operation has uncertain risks to the financial rights and interests of stakeholders. If there are too many debts, the operation situation has not been well improved, and the debt cannot be repaid within the specified time limit, which will lead to financial difficulties. If there is no improvement, there will be the risk of bankruptcy. Being affected by the internal environment and improper management methods will also generate risks, including external factors such as macroeconomic policies and changes in the market environment. Due to these influencing factors, the risk of loss and income is uncertain, which has brought an adverse impact on the financial situation and led to the generation of financial risk. In 2017, the score was higher: $0.25746, F4 = 2.71944, F5 = 0.49$. In general, the concept of financial risk is still very holistic. The various business links that it produces may occur in the process of financing or in the process of investment. Compared with the narrow concept, the financial risk in the broad sense is more in line with the characteristics of risk, and it arises from each link related to financial activities. It is based on the analysis of financial risk in a broad sense. As shown in Table 3 and Figure 5, it can be seen that the economic quality scores were higher in 2011 and 2017.

**Table 3: Comprehensive score.**

| Year | F1       | F2       | F3       | F4       | F5       |
|------|----------|----------|----------|----------|----------|
| 2000 | 0.41648  | 0.55995  | 1.49627  | 0.26501  | 0.34     |
| 2001 | 0.41606  | 0.65002  | 1.50912  | 0.65535  | 0.43     |
| 2002 | 0.52557  | 1.49627  | 1.00702  | 0.43894  | 0.36     |
| 2003 | 0.05688  | 0.77781  | 1.09591  | 0.16     | 0.44     |
| 2004 | 0.00568  | 0.93516  | 0.85469  | 0.48423  | 0.39     |
| 2005 | 0.20467  | 1.06447  | 0.49352  | 0.14716  | 0.35     |
| 2006 | 0.07067  | 1.04538  | 0.37502  | 0.01034  | 0.32     |
| 2007 | 0.17083  | 1.00702  | 1.70869  | 0.04021  | 0.1      |
| 2008 | 0.53396  | 0.81243  | 1.77782  | 0.91184  | 0.29     |
| 2009 | 0.66739  | 0.7232   | 0.95664  | 1.1617   | 0.49     |
| 2010 | 0.52557  | 0.78161  | 1.31122  | 2.60109  | 0.53     |
| 2011 | 3.64246  | 0.76692  | 0.53378  | 0.25094  | 1.55     |
| 2012 | 0.03782  | 1.28212  | 0.37827  | 0.83716  | 0.36     |
| 2013 | 0.44595  | 0.61294  | 0.7972   | 0.46002  | 0.12     |
| 2014 | 0.90593  | 0.44733  | 0.04924  | 0.43268  | 0.21     |
| 2015 | 0.90204  | 0.30946  | 0.40893  | 0.31798  | 0.32     |
| 2016 | 0.69659  | 1.7071   | 0.42569  | 0.25094  | 0.2      |
| 2017 | 1.06     | 1.42669  | 0.25746  | 2.71944  | 0.49     |
| 2018 | 0.85075  | 1.27471  | 0.19437  | 0.15926  | 0.71     |
| 2019 | 0.3077   | 1.29736  | 0.22135  | 0.6245   | 0.28     |
4.4 Key Factors of Economic Growth. The key factors for economic growth include gross national product, inflation, employment rate, and the balance of payments. These factors were analyzed and compared using factor analysis. In the univariate evaluation, the evaluation process lacks comprehensiveness and integrity, so the use of this model is limited. Use multivariate statistical methods to construct linear functions of several variables. Assess financial risk based on the results. It makes up for the shortcomings of using only one variable in the univariate model method and makes the evaluation results more comprehensive. However, this method has higher requirements on data, and the data should be normally distributed, but this condition cannot be satisfied in all cases, and the model is complex. Refer to expert opinion and qualitative and quantitative analysis of the actual situation. The principle is simple and easy to practice. However, the expert judgment is used in the analysis process, which is easily affected by human subjectivity, which may make the analysis results lack certain objectivity and scientific. Factor analysis uses a small number of factors to represent complex variable relationships. According to the matrix formed by the selected variables and the internal relationship between them, HHI = 0.0038, Gini = 0.156, THEIL = 0.0378, and CV = 0.2798 were used to replace the original variables for analysis and used to explain the problems of the Japanese economy. The selected data are objective, and the meaning of the factors extracted from the original data cannot be accurately determined. The factor analysis method can solve such problems to a large extent because of its advantages of simplifying analysis indicators and simple operation and can quickly obtain financial risk evaluation results while ensuring a high accuracy rate. It is shown in Table 4 and Figure 6.

5. Conclusion

Factor analysis is suitable for the conditions of complex correlation, large sample size, many influencing factors, and many selected indicators; able to conduct research on a variety of subjects; and can better apply multivariate statistical methods to the evaluation of financial performance. Among other common methods of evaluating financial performance, factor analysis methods can reduce dimensionality and simplify data basically design weights. Factor analysis can reduce the dimensionality of data even with large sample sizes. It avoids a lot of complicated calculations, reduces the difficulty of calculation, and solves the problem of overlapping factor information, reflecting the advantages of multivariate statistics. Based on the factor analysis method, this study analyzes the quality analysis and key factors in Japan’s economic growth: (1) integrity principle residents’ financial risk is composed of multiple factors, not only unilateral factors but also the following factors: determine the influencing factors, select indicators, and identify risks and potential hazards. Financial risk itself is comprehensive, and the assessment of risk arising from a single factor is less important. (2) The requirements for the selected financial indicators are that the unit and order of magnitude should not only be accurate but also consistent, the financial information reflected by the selected financial indicators should be direct and clear, and financial data should be obtained in multiple ways, through annual reports and the Internet, to collect financial data. The analysis of financial performance
based on scientific principles can show the current operating conditions, so the selection of financial indicators must be true, effective, and objective, so as to correctly reflect the real situation, and it is beneficial to combine the analysis results and carry out the following steps. One-step planning layout. (3) Financial risks may arise in the process of financing or in the process of investment. Financial risk in a broad sense is more in line with the characteristics of risk, and it arises in every link related to financial activities. The analysis is carried out in terms of financial risk in a broad sense. It can be seen that the economic quality scores were higher in 2011 and 2017. (4) Use several representative factors to replace the original variables for analysis, and explain the problems existing in the Japanese economy according to the results. The key factors for economic growth include gross national product, inflation, employment rate, and the balance of payments.

Data Availability

The experimental data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The author declared that there are no conflicts of interest regarding this work.

References

[1] D. Gao, B. Zhang, and S. Li, “Spatial effect analysis of total factor productivity and forestry economic growth,” *Forests*, vol. 12, no. 6, p. 702, 2021.

[2] B. Qla and B. Ms, “BALFA: a brain storm optimization-based adaptive latent factor analysis model,” *Information Sciences*, vol. 578, pp. 913–929, 2021.

[3] W. Fukumoto, H. Mitani, Y. Kuno et al., “Incidence and factor analysis of laryngohyoid fractures in hanging individuals—computed tomography study,” *European Radiology*, vol. 31, no. 10, pp. 7827–7833, 2021.

[4] Y. G. Kim, H. U. Kwon, and K. Fukao, “The causes of Japan’s economic slowdown and necessary policies: an analysis based on the Japan Industrial Productivity Database 2018,” *SSPJ Discussion Paper Series*, vol. 114402, 2021.

[5] A. Aghamolaei, S. Hamzehei-Javaran, and S. Shojaee, “Complex Fourier-based stress intensity factor analysis of plane elasticity using boundary element theories,” *International Journal for Numerical Methods in Engineering*, vol. 123, no. 5, pp. 1360–1380, 2022.

[6] Q. Zhou, Y. Wang, J. Wang et al., “Prevalence and risk factor analysis for the nonalcoholic fatty liver disease in patients with type 2 diabetes mellitus,” *Medicine*, vol. 100, no. 10, article e24940, 2021.

[7] Y. Jiang, J. Chen, and H. Zhou, “Residual learning of the dynamics model for feeding system modelling based on dynamic nonlinear correlate factor analysis,” *Applied Intelligence*, vol. 51, pp. 1–14, 2021.

[8] K. Fukao, Y. G. Kim, and H. U. Kwon, “The causes of Japan’s economic slowdown: an analysis based on the Japan Industrial Productivity Database,” *International Productivity Monitor*, vol. 40, pp. 56–88, 2021.

[9] N. Yamada, Y. Kitagawa, T. Yoshida, S. Nachi, H. Okada, and S. Ogura, “Validity and risk factor analysis for helicopter emergency medical services in Japan: a pilot study,” *BMC Emergency Medicine*, vol. 21, no. 1, 2021.

[10] A. S. S. Ridwan, R. Homma, and H. Liu, “Factor affecting and damage mapping of flood inundation in Japan: a case study of Hitoyoshi City, Kumamoto Prefecture,” *Japan. IOP Conference Series: Earth and Environmental Science*, vol. 989, no. 1, p. 12032 (10), 2022.

[11] S. Pagliuca, P. H. Prata, and A. Xhaard, “Long-term outcomes and risk factor analysis of steroid-refractory graft versus host disease after hematopoietic stem cell transplantation,” *Bone Marrow Transplantation*, vol. 56, pp. 1–12, 2021.

[12] Y. Cui, J. Shao, H. Sun, X. Wang, and Z. Zhu, “Risk factor analysis of bronchospasm after traechobronchial foreign body removal: cases report and literature review (STROBE),” *Medicine*, vol. 99, no. 52, article e23170, 2020.

[13] K. Matsumura, K. Hamazaki, A. Tsuchida et al., “Factor structure of the Edinburgh Postnatal Depression Scale in the Japan Environment and Children’s Study,” *Scientific Reports*, vol. 10, no. 1, p. 11647, 2020.

[14] A. Ohkuchi, H. Masuyama, T. Yamamoto et al., “P-017. The Elecsys sFlt-1/PIGF ratio for short-term prediction of pre-eclampsia in the Japanese cohort of the PROGNOSIS Asia study: economic evaluation,” *Hypertension Research*, vol. 25, no. 4, p. e34, 2021.

[15] W. Tao, H. Guang-Shun, G. Jing, Y. Yue, and L. Lin-lin, “Energy consumption and economic growth in China’s marine economic zones—an estimation based on partial linear model,” *Energy*, vol. 205, p. 118028, 2020.

[16] R. Yao and F. Qin, “Novel AC distribution factor for efficient outage analysis,” *IEEE Transactions on Power Systems*, vol. 35, pp. 1–1, 2020.

[17] S. Zeng, Y. Liu, J. Ding, and D. Xu, “An empirical analysis of energy consumption, FDI and high quality development based on time series data of Zhejiang Province,” *International Journal of Environmental Research and Public Health*, vol. 17, no. 9, p. 3321, 2020.

[18] L. Zhang, X. Jia, J. Zhao, A. Hasi, and Y. Niu, “Molecular characterisation and expression analysis of NAC transcription factor genes in wild Medicago falcata under abiotic stresses,” *Functional Plant Biology*, vol. 47, no. 4, p. 327, 2020.

[19] M. M. Tsai, E. A. Frongillo, L. D. Ritchie, G. Woodward-Lopez, and L. E. A., “Factor analysis reduces complex measures of nutrition environments in US elementary and middle schools into cohesive dimensions in the healthy communities study,” *The Journal of Nutrition*, vol. 151, no. 5, pp. 1286–1293, 2021.

[20] L. Karjalainen, M. Tikkanen, K. Rantanen et al., “Stroke in pregnancy and puerperium,” *Neurology*, vol. 96, no. 21, pp. e2564–e2575, 2021.

[21] R. Bragg, A. Macrae, S. Lycett, E. Burrough, G. Russell, and A. Corbishley, “Risk factor analysis for beef calves requiring assisted vaginal delivery in Great Britain,” *The Veterinary Record*, vol. 188, no. 2, pp. 100–110, 2021.
"Construction of four factor analysis of variance (ANOVA) model and cancer risk assessment,” Advances in Applied Mathematics, vol. 10, no. 6, pp. 2155–2165, 2021.

C. Mariani, L. Botta, A. Leone et al., ”Visceral malperfusion after frozen elephant trunk in chronic aortic dissection: postoperative predictors and outcomes,” International Journal of Cardiology, vol. 335, pp. 26–31, 2021.

A. Ps, B. Mv, C. Vr et al., ”Prognostic factor analysis and long-term results of the TAX 323 (EORTC 24971) study in unresectable head and neck cancer patients,” European Journal of Cancer, vol. 156, pp. 109–118, 2021.

L. Weyer, H. M. D. Vries, and B. Rhijn, ”Incidence and risk factor analysis of complications after sentinel node biopsy for penile cancer: evaluation at a single high-volume center,” European Urology, vol. 79, p. S920, 2021.

C. M. Cuniff, E. Leckman-Westin, and M. L. Browne, ”Descriptive and risk factor analysis of infantile cataracts: National Birth Defects Prevention Study,” American Journal of Medical Genetics Part A, 2022, vol. 188, no. 2, pp. 509–521, 2022.

J. D. Tarnas, J. F. Mustard, X. Wu et al., ”Corrigendum to Successes and challenges of factor analysis/target transformation application to visible-to-near-infrared hyperspectral data,” Icarus, vol. 2021, article 114402, 2021.