

# Clustering Technique for Analyzing Lifestyle of Health and Sustainability of Undergraduate Students

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**Abstract:** *In this study, we delve into the realm of undergraduate students' perceptions of Adopting a pioneering two-step Clusters Analysis method promotes a lifestyle centered on well-being and environmental sustainability. This method uncovers a multitude of distinctive clusters, with the geographical location of these undergraduates playing a pivotal role in shaping these groupings. Our investigation extends to evaluating the influence of various predictors on the formation of these clusters, revealing unique relationships between each cluster and the predictors examined. Notably, our findings illuminate that as the number of clusters increases, so does the complexity of predictor variables. Furthermore, we unearth a compelling revelation - that Location emerges as the paramount predictor, with differing perspectives on Lifestyle of Health and Sustainability conspicuously correlated with the geographic origins of these undergraduate students.*

**Keywords:** Lifestyle of Health and Sustainability, Cluster Analysis, Simple Random Sampling, Predictors, Undergraduate Students.

## REFERENCES

- [1]. Adhikari, A. (2023). Application of Mahalanobis Distance in Education and Educational Psychology: A Mini Review. *Innovare Journal of Education*, 11(4). 5-7.
- [2]. Adhikari, A. (2023b). Socio-Educational Perspectives: A Study on Human Adjustment. *EPR International Journal of Research & Development (IJRD)*. 8(1), 97-101
- [3]. Adhikari, A., & Sen, S. (2023a). Cluster Analysis on Institutional Commitment and Organizational Climate. *International Journal of Research Publication and Reviews*, 4(5), 4974-4988.
- [4]. Adhikari, A., & Sen, S. (2023b). Recent Trends of Cluster Analysis in Education. *International Research Journal of Modernization in Engineering Technology and Science*, 5(8), 1858-1861.
- [5]. Adhikari, A., Gayen, P., Mahato, R. C., Pal, I., & Sen, S. (2023a). Multi-dimensional Data Analysis in Education: Accumulation and Comparison among Variables. *International Journal of Research Publication and Reviews*, 4(5), 2243-2245.
- [6]. Adhikari, A., Gayen, P., Sutradhar, A., & Sen, S. (2023b). Measure for Measure: Statistics in Education. *International Journal of Research Publication and Reviews*. 4(5). 4239-4243.
- [7]. Adhikari, A., Mahato, R.C., Gorain, S.C., & Sen, S. (2023). A Review on Parametric and Non-Parametric Test in Education. *International Journal of Research and Analytical Reviews (IJRAR)*, 10(2), 796-801.
- [8]. Ansary, K., Ansary, S., Adhikari, A., & Sen, S. (2023). Clustering Technique for Analysing Attitude towards Value-oriented Education among Undergraduate Students. *International Journal of Research Publication and Reviews*, 4(5), 5576-5584.
- [9]. Cancer Centre Cessation Initiative Sustainability Working Group (2021). Sustainability of Tobacco Treatment Programs in the Cancer Centre Cessation Initiative. *Journal of the National Comprehensive Cancer Network: JNCCN*, 19, 16-20.

- [10]. Choi, S., & Feinberg, R. A. (2021). The LOHAS (Lifestyle of health and sustainability) Scale Development and Validation. *Sustainability*, 13(4), 1598.
- [11]. Dey, B., & Bairagya, S. (2023). The Green Economy Is a Road Map for A Sustainable Lifestyle. *International journal of multidisciplinary educational research*, 12(1), 34-36.
- [12]. Dian, W., Pambudi, W. F., Janny, A. D., Bintang, S., Sukrisno, & Kundori, K. (2022). The mediating role of environmental sustainability between green human resources management, green supply chain, and green business: A conceptual model. *Uncertain Supply Chain Management*, 10(3), 1-13.
- [13]. Duarte, M., Dias, Á., Sousa, B., & Pereira, L. (2023). Lifestyle Entrepreneurship as a Vehicle for Leisure and Sustainable Tourism. *Int. J. Environ. Res. Public Health*, 20, 3241.
- [14]. Gorain, S. C., Saha, B., Maji, S., & Sen, S. (2022). A Study on Relationship and Cluster Analysis among Internet Dependency, Social Isolation and Personality. *International Journal of Research Publication and Reviews*, 3(1), 884-888.
- [15]. Haldar, P., Roy, S., Gorain, S.C., Adhikari, A. & Saha, B. (2022). Measuring Attitude towards Sustainable Development among Trainee Teachers in Purulia District of West Bengal. *American Journal of Educational Research*, 10(12). 682-696.
- [16]. Hendriyani, M. E., Rafenia, V., Maharani, S., & Al-Azis, H. (2023). The Implementation of the Independent Curriculum through Independent Project on Sustainable Lifestyle Theme for Grade 10 Students. *Jurnal Pendidikan Indonesia Gemilang*, 3(2), 242-253.
- [17]. Islam, D., Bhuiyan, M. (2018). Sundarbans Mangrove Forest of Bangladesh: Causes of degradation and sustainable management options. *Environmental Sustainability*, 1, 113–131.
- [18]. Khatun, S., Ansary, K., and Adhikari, A. (2022). Attitude Towards Yoga Education among Undergraduate Students. *EPRA International Journal of Multidisciplinary Research (IJMR)*, 8(12). 9-13
- [19]. Kumari, S. (2022). Sustainable Lifestyle for Healthy Environment. *EIACP: Geodiversity and Impact on Environment*, 27(3), 17-21.
- [20]. Mahato, R. C. & Sen, S. (2021). Application of Mahalanobis Distance to Determine the Dynamical Nature of Academic Stress, Self-efficacy in Mathematics and Anxiety in Mathematics. *International Journal of Advances in Engineering and Management (IJAEM)*. 3(5). 1398-1401
- [21]. Mohanta, R., Adhikari, A., Pal, I., & Sen, S. (2023). Introspecting Institutional Commitment Using Cluster Analysis. *International Research Journal of Education and Technology*, 5(4), 198-217.
- [22]. Mohanta, R., Sen, S., Adhikari, A., & Pal, I. (2023). Perceptual Environment: A Study on Organizational Climate Using Cluster Analysis. *International Journal of Research Publication and Reviews*, 4(4). 1336-1346.
- [23]. Roberts, K. E., Beckenkamp, P. R., Ferreira, M. L., Duncan, G. E., Calais-Ferreira, L., Gatt, J. M., & Ferreira, P. (2022). Positive lifestyle behaviours and emotional health factors are associated with low back pain resilience. *Eur Spine J*, 31(12), 3616-3626.
- [24]. Saha, B., Sen, S., & Adhikari, A. (2021). Analysis of Attitude Towards Yoga Among College Students Using Clustering Techniques. *EPRA International Journal of Multidisciplinary Research (IJMR)*. 7(9), 308-314.
- [25]. Scozzese, G., & Gelli, M. (2023). Lifestyle as a Branding Strategy for the Sustainable Brand. *European Scientific Journal, ESJ*, 19(22), 1.
- [26]. Sen, S. & Pal, I. (2020). Mahalanobis Distance: A Study on Achievement of Science and Mathematics. *International Journal of Creative Research Thoughts*, 8(7). 2542-2547.
- [27]. Sen, S., Adhikari, A., Ansary, K., & Roy, S. (2023a). Clustering Technique for Analyzing Leadership Style of the Head of the Institutions. *International Journal of Advanced Research in Science, Communication and Technology (IJAR SCT)*, 3(3), 220-228.
- [28]. Sen, S., Gayen, P., Pal, I., Sutradhar, A., Ansary, K., Mahato, R.C., & Adhikari, A. (2023b). Comparison among different leadership styles of head of the institution of West Bengal by Mahalanobis distance. *International Research Journal of Modernization in Engineering Technology and Science*. 5(4). 5005-5010

- [29]. Sen, S., Gayen, P., Pal, I., Sutradhar, A., Ansary, K., Mahato, R.C., & Adhikari, A. (2023c). Comparison among Different Leadership Styles of Head of the Institution of West Bengal by Mahalanobis Distance. *International Research Journal of Modernization in Engineering Technology and Science*, 5(4). 5005-5010.
- [30]. Stillwell, A. S., Cominola, A., & Beal, C. D. (2023). Understanding resource consumption and sustainability in the built environment. *Environmental Research Infrastructure and Sustainability*, 3(3), 1-4.