

## HUMAN RESOURCE MANAGEMENT SUSTAINABILITY IN UNIVERSITIES BASED ON COCHRAN METHOD

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**ABSTRACT:** The foundation for the future expansion and success of a business is the sustainability of Human Resource Management (HRM). The purpose of this study is to look into how universities may achieve HRM sustainability. Our study employs a quantitative research technique design to examine the variables influencing HRM sustainability in higher education. The universities hosted the study in the spring and summer of 2020. The Cochran method was used to determine a sample size of 334 workers because the statistical population of the research consisted of 2543 employees. The consisting of 32 items on a 5-point Likert scale, and PLS3 software was utilized for analysis. The results show that implementing appropriate HRM practices and associated socio-economic and psychological supports is crucial for HRM sustainability in universities, which can boost the competitiveness of universities and other higher education institutions. Hence, this model will achieve the results interms of efficiency, reliability and stability.

**KEYWORDS:** Sustainability Management, Human Resource Management Sustainability, University

### I. INTRODUCTION

Human Resource Management (HRM) is the practice of recruiting, hiring, deploying and managing an organization's employees. HRM is often referred to simply as Human Resources (HR). A company or organization's HR department is usually responsible for creating, putting into effect and overseeing policies governing workers and the relationship of the organization with its employees. The term human resources was first used in the early 1900s, and then more widely in the

The purpose of HRM practices is to manage the people within a workplace to achieve the organization's mission and reinforce the corporate culture [2]. When people management is done effectively, HR managers can help recruit new employees who have the skills to further the company's goals. HR professionals also aid in the training and professional development of employees to meet the organization's objectives. A company is only as good as its employees, making HRM a crucial part of maintaining or improving the health of the business. Additionally, HR managers monitor the state of the job market to help the organization stay competitive. This could include ensuring compensation and benefits are competitive, events are planned to keep employees from burning out and job roles are adapted based on the market[3].

Human resources management of higher education is in charge of setting down and actualizing different talent layouts, in charge of bringing in and out talent and managing, in charge of educating and training the teachers and employee and organizing to assess all kinds of professional technical position, in charge of the management of human resources and the setting of the school organizations and posts, in charge of the planning and management of labor payment, social insurance and welfare work, in charge of

the management of human resources files and so on. As the network technology is developing rapidly and the management information technology is improving continuously, human resources management of higher education is also changing from management by hand to management by computer. It has established digital human resources files and achieved the automation and digital management under the network situation. As higher education gets united, educational resources become recombined and the reform of higher education human resources is going, the human resources management of higher education is changing greatly, not only in its working area but also in its working connotation. Traditional human resources management information system is not fit for the need of the new times. So human resources management needs to adopt new technology, new management mode and show a new state to face the world.

Management is related to the success of a key university, and mismanagement is a major obstacle to improve the quality of higher education. The human resource management is an important aspect of management, all strategies, policies, systems development and implementation should be one, it will directly affect the degree of realization of the objectives of University [4]. Expansion of higher education system, it reforms of institutions of higher education and has become a 21st century realities facing higher education. It fights for resources and effective use of resources, improving education quality and management efficiency has become a daunting task facing the colleges and universities [5]. In recent decades, though in both academic and practical, they have a lot of experts and scholars on human resource management and organizational

performance is very concerned about and it conducts empirical research and has also made great progress, but for University Human Resources Management and Organizational Performance of University less empirical research. As the college of their human resources development and management of organizational performance improvement in the university plays a very important role, and therefore of Human Resource Management and Organizational Performance of theoretical and practical significance. Compared with the traditional personnel management, strategic human resource management is to organize human resources management linked with organizational strategic goals; the core is with planned and systematic human resources development and management activities to accelerate the organizational strategic objectives [6]. SHRM wright & Mcmanhan is commonly used definition, meaning to ensure the achievement of organizational strategic objectives in a series of planned human resource department and management behavior. This definition has four characteristics: Firstly, irreplaceable human resources, human resources organizations gain competitive advantage as the most important resource; secondly, it is systematic in order to gain competitive advantage and the deployment of human resources policies, practices and methods and other management behavior is the system; thirdly, it is strategic, that is fit of, including the vertical level of fit and fit, the vertical fit SHRM and organizational strategy with the level between the SHRM system; the final goal nature, targeting human resources management are to maximize organizational performance.

## II. LITERATURE SURVEY

L. Jianshe and Y. Qun., et.al [7] Labor flexibility is the expression of JIT (just in time) in human resource. In order to realize the lowest resource consumption under supply chain management, organizations not only should pay attention to production planning and controlling and inventory management, but also attach importance to the human resource flexibility management. This paper analyzes the human resource levels and job attributes in the organization which applies JIT system, combined with the production operation management under JIT system, comes to human resource allocation and incentive strategies of such organization.

Jie Dong and Qinglong Liu, et.al [8] theory of all-round development of human beings is an important component of Marxism system, and is also the theoretical basis of human resources management for colleges. The key to the personnel system reform of colleges should, on the basis of all-round development of human beings of Marxism and on the precondition of fully carrying out the scientific outlook on development, make human resources management of colleges scientific and standard. Starting from the theory of all-round development of human beings, the author analyzed the significance of all-round development theory to the human resources management of college teachers and the neglect of the theory in human resources management in colleges nowadays, and then put forward some specific measures on the emphasis of all-round development theory of human beings when dealing with human resources management..

Dexin Zou, Bingquan Liu and Chong Jiang, et.al [9] uses modern statistics analysis method to study the human resource management system of Chinese

Sports Universities on the impact of teachers' micro-performance, empirical results show that human resources management of sports universities practices and teacher performance are closely related; optimized teacher human resource management system constitutes of talents introduction mechanism, teacher training and participation mechanisms, teacher performance evaluation and incentive mechanism and emotional commitment mechanism; the role of affective commitment on the human resources management of sport universities is limited, facing the problem of brain drain, the article is hereby to make certain recommendations accordingly.

Q.Zhao, et.al [10] follows the ideas of theoretical study, current situation analysis and countermeasure discussion. Based on the characteristics and an analysis of existing problems of human resource management in Chinese engineering and technology universities, the paper combs how to use human resources and studies the problems, such as, low quality, bad structure and so on, in human resource management practice in Chinese engineering and technology universities. After analyzing the causes of the problems from the angle of mechanism elements, this paper puts forward some solution ideas and measures, mainly in the compilation of the management, appointment system, term examination, the reform of the income distribution system and people-oriented human nature management system, to strengthen and better human resource management in Chinese engineering and technology universities. This paper offers some hints and practical advice on human resource management for Chinese higher education.

P. Yan, H. Yan and L. Ma., et.al [11] explains basic way is to develop rural

vocational education, expand rural higher vocational education and bring up new farmers to develop the human resources. The new farmers are subjects of constructing social new countryside. A new evaluation method is proposed by analyzing evaluation problem of rural higher vocational education included the characteristics of uncertain information. Firstly, evaluation index system is established, and grading standards is put forward. Secondly, such influence factors as bringing up new farmers in agricultural colleges and universities is described. Thirdly, the qualitative result is transformed to quantities value. Then unascertained number of factor result and index weights is established. Finally, using unascertained number algorithm, the result of evaluation is worked out. So it is an effective and scientific quantitative analysis for developing higher rural education and human resources in the rural.

Y. Hu, et.al [12] research was based on previous studies, combined with their own university Case Analysis, Analysis of the best domestic and international dimensions of human resource management literature and a large number of human resource management in Chinese Universities on the basis of the actual situation, make the most of University Human Resource Practice good dimension for the college to improve organizational performance to provide some references and ideas..

X. Liu, C. Zhang, H. Tan and X. Guo., et.al [13] present-day theorists study higher education of the disabled particularly from the perspective of social welfare and social justice. It is a new subject to carry out the study from the perspective of human capital theory. The disabled who accept higher education is an important part of the human resources, and they can create more social value to

society far beyond the investment to them. That education policymakers and society think about higher education of the disabled from the perspective of human capital has an important theoretical and practical significance.

B. B. Pathik, M. T. Chowdhury and M. M. Habib, et.al [14] illustrates the first practical analysis of ITESCM (Integrated Tertiary Educational Supply Chain Management) model which was developed by Habib for the academia, especially for tertiary educational institutions. ITESCM model addresses the integrated form of supplied inputs, supplied outputs, education supply chain, research supply chain and educational management for the Universities. The model delivers two contributions to the consumer, i.e. the society, including human resource contribution and research contribution in terms of high caliber graduates and high impact research outcomes respectively. As a case study approach, the researchers applied the model on a leading University in Bangladesh through 307 respondents, representing University administrators, faculty and staff, graduates, employers etc. were participated in the survey to justify quality outcomes towards the end customer of the educational supply chain.

H. Lihong, et.al [15] design a integrative management system of physical education and hygiene work in the school. This system can not only be used in integrated management of health, but also can be added new function based on the actual management needs. The system is programmed with ADO (ActiveX Data Objects) technology, and maintains the consistency of the code. This method can keep the user interface of system friendly, and can achieve the system's function well. Physical education and hygiene management will be more scientific, more

modern and work efficiency will be more efficient through the sharing of resources, data general, network transmission of integrated management system in the school.

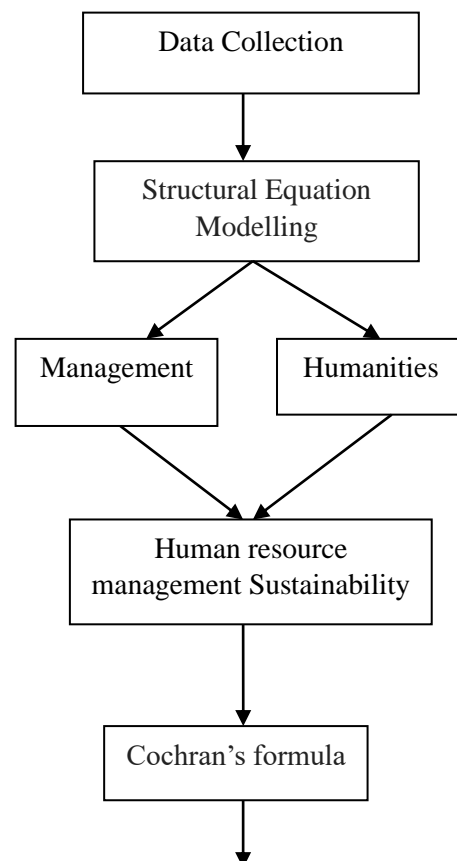
### III. METHODOLOGY

Organizational factors are among the most fundamental variables that affect HRM sustainability. According to the International Standardization Organization's (ISO) model, organizational sustainability identifies opportunities, changes, and trends in the external environment ISO/CD9004, promoting jobs and profitability while considering society and the environment. It provides solutions that improve people's lives and meet basic needs with the least environmental impact and highest social performance for the present and future. It also helps HRM develop the mentality and actions that lead to organizational sustainability. Some practices, such as talent acquisition, training, knowledge acquisition, and skill and ability development programs, contribute to organizational HR sustainability objectives. Organizational sustainability should be grounded on validating, recognizing, and enhancing the capabilities of professionals. If these issues are not addressed, the organization will have a strong tendency to lose talent.

In this analysis Cochran's method is implemented. This descriptive-correlational study is applied in terms of its developmental purpose and quantitative data collection. The purpose of applied studies is to develop applied knowledge in a specific field. The study's statistical population included 2543 employees from three state universities from three different states. As structural equation modeling was used for the analysis, the sample size

should be 5 to 10 times the number of questionnaire items. Therefore, based on Cochran's formula, 334 employees were selected. Based on the analysis of the quantitative data, 73% of the respondents were male, and 27% were female; besides this, 78% held a Ph.D. degree, and 22% held a Master's degree. Moreover, 23% of the participants were single, and 77% were married.

Finally, 17% of the respondents had up to 5 years of experience, 63% had between 5 and 10 years of experience, and 20% had over 10 years of experience. Since there were no standard questionnaires on this topic, a researcher-made questionnaire. The study involved employees who provided informed consent forms for voluntary participation in a project focusing on HRM sustainability and organizational and environmental sustainability. Data was analyzed using Smart PLS3 software, with the structural model being more



Result

**Fig.1: Proposed Block Diagram**

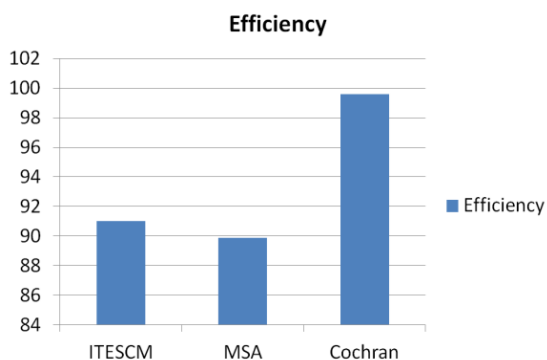
significant than the measurement model. The questionnaire's face and content validity were confirmed through expert judgment and subject literature review. Construct validity was measured using structural equation modeling, and reliability was assessed using Cronbach's alpha and combined reliability. The results indicate excellent validity and reliability.

**IV. RESULT ANALYSIS**

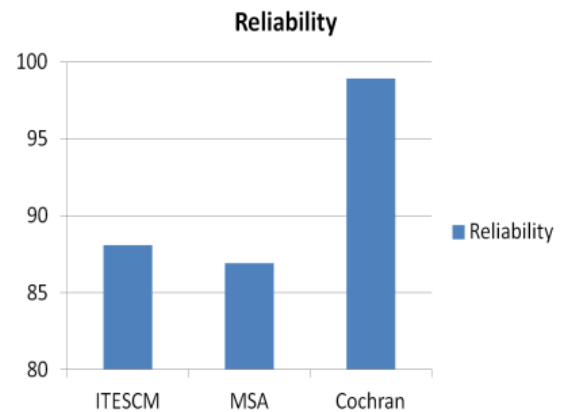
The result analysis of Human Resource Management Sustainability in Universities based on Cochran method is observed in this section.

**Table.1: Performance Analysis**

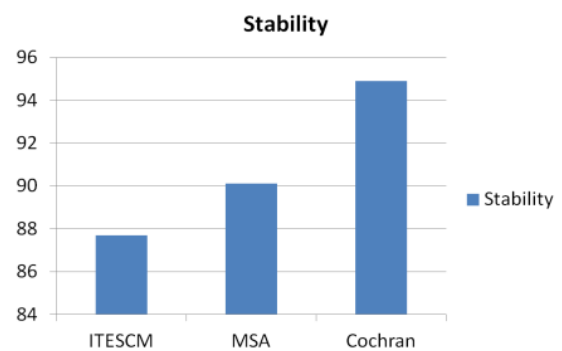
Parameters	ITESCM	Modern Statistics Analysis (MSA)	Cochran
Efficiency	91	89.8	99.6
Reliability	88.1	86.9	98.9
Stability	87.7	90.1	94.9

**Fig.2: Efficiency Comparison Graph**

In Fig.2 efficiency comparison graph is observed between ITESCM, MSA and Cochran methods.

**Fig.3: Reliability Comparison Graph**

Reliability comparison graph is observed between in Fig.3 ITESCM, MSA and Cochran methods.

**Fig.4: Stability Comparison Graph**

In Fig.4 stability comparison graph is observed between ITESCM, MSA and Cochran methods.

**V. CONCLUSION**

The study highlights the importance of HRM sustainability in Higher Education Institutions (HEIs) and emphasizes the need for investigation of environmental, socio-cultural, and human resource practices, as well as organizational, psychological, economic, and political factors. It emphasizes the need for a balance between work and life, and the need for HEIs to consider sustainability for long-term success. Hence, this model improves the performances of efficiency, reliability and stability.

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