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Study on the Application of KPIs for the Staff at Buon Ma Thuot Medical University

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Abstract: *This study evaluates the satisfaction levels of lecturers and staff at Buon Ma Thuot Medical University (BMTU), focusing on their roles in teaching, research, and brand development of the institution. The study develops and applies evaluation indicators based on Circular 20/2020/TT-BGDĐT of the Ministry of Education and Training, with indicator levels adjusted according to BMTU's specific environment. This includes a maximum score of 100 points for quantity and 360 points for the quality of teaching activities, scientific research, brand-building contributions, and reward and penalty points across 23 different job positions within the university. Based on survey results from nearly 200 personnel, it serves as an important experimental evaluation tool in the university's process of developing appropriate performance evaluation criteria. This contributes to the development of the university's management system and provides a reference personnel assessment model for the management processes of higher education systems.*

Keywords: *KPI indicators, personnel management, education quality*

1. Introduction

In the modern era, enhancing higher education quality is essential for any institution, with personnel performance being a key factor. To ensure educational quality, a comprehensive and transparent evaluation system is necessary, promoting professional development and improving educational services. Vietnam is advancing a quality assurance culture, strengthening both independent and internal measures based on a national framework. A strong governance structure is crucial for fostering innovation and supporting effective personnel management, administration, and financial control. The importance of Key Performance Indicators (KPIs) in measuring and improving performance is increasingly recognized in Vietnamese universities. Buon Ma Thuot Medical University, marking its 10th anniversary, is focusing on its strategic development goals. To ensure a quality health training environment, it is essential to develop a system for evaluating and enhancing teaching and research quality, optimizing budgets, allocating resources effectively, improving learner experiences, and setting long-term goals. This involves regularly reviewing and adjusting strategies, with KPIs tailored to align with the specific responsibilities of each position.

2. The literature review on the Application of KPIs in Universities

The use of KPIs in universities has prompted diverse scholarly opinions. Scholars agree that KPIs improve teaching and research quality by providing metrics to identify improvement areas, such as scientific publications, lecture quality, pass rates, and stakeholder satisfaction. KPIs also enhance accountability and transparency when made public. While well-researched globally, the application of KPIs in Vietnamese universities is less documented. This literature review explores existing studies on KPIs in higher education and their adaptation for staff performance evaluation. Neely (1999) states that KPIs monitor performance against strategic objectives, offering a clear framework for accountability and improvement.

The successful implementation of KPIs requires a comprehensive understanding of the institution's strategic goals and the alignment of these goals with measurable outcomes. According to a study by Smeekens et al. (2014), the implementation process should involve 4 steps: Identifying key areas of performance. Developing specific, measurable, achievable, relevant, and time-bound (SMART) indicators.

As highlighted by Ferreira and Otley (2009), academic KPIs should balance quantitative metrics (e.g., number of publications, research grants) with qualitative assessments (e.g., peer reviews, student feedback).

The literature identifies several challenges in

implementing KPIs in higher education:

Faculty and staff may resist the introduction of KPIs due to concerns over increased workload and accountability, they resistance to change(Speckbacher et al., 2003). Accurate data collection is crucial for meaningful KPI analysis. Institutions often struggle with integrating data from various sources into a cohesive system (Behn, 2003). Cultural Adaptation to adapting KPIs to fit the local context and culture is essential. What works in one educational system may not be directly transferable to another (Hofstede, 2001). (Speckbacher et al., 2003).

Several universities worldwide have successfully implemented KPIs: University of Melbourne: Introduced KPIs to improve research performance, resulting in increased research funding and higher global rankings (Proulx et al., 2012). Singapore Management University: Used KPIs to enhance teaching quality and student satisfaction, leading to better employment outcomes for graduates (Chong, 2010).

Author T.L. Hương Nguyễn (2016) found that, compared to the "ideal" personnel management policies of research-focused institutions, the human resource management policies at four top Vietnamese universities are insufficient to encourage educational managers to maximize their research efforts. Through policy analysis and 55 semi-structured interviews with leaders and education managers, it was suggested that to become leading research-oriented universities, they must develop a long-term HR management strategy. This includes implementing robust reward and penalty mechanisms, clear KPIs for evaluating faculty research performance, and a comprehensive staff development program. System-level changes are necessary for feasibility.

The Partnership for Higher Education Reform (PHER, 2022) emphasized that evaluating the performance of managers and staff, including the use of KPIs in Vietnamese universities, enhances leadership capabilities, institutional and administrative functions, teaching methods, and student learning outcomes. This approach helps students better prepare for the current labor market.

The new university model initiatives at Tra Vinh University and Vietnam-Germany University involve organizing training courses on applying KPIs and using the RACI matrix model. Additionally, the 3P salary calculation formula and KPI-based performance evaluation are commonly used tools for faculty compensation at public universities in Vietnam (Tung, P.H, 2022). Moreover, the globalization goal of Vietnamese universities is evident in the adoption of quality management systems such as ISO, as seen in "University of the World" cases. KPIs are essential tools for measuring success and progress toward goals, analyzing performance to assess competition between universities, and providing an overview of performance for reporting and evaluation purposes (Vu, M.T, 2019).

Overall, the application of KPIs in Vietnamese universities plays a crucial role in evaluating operational effectiveness, enhancing quality management, and driving strategic decision-making in higher education institutions. However, for each distinct target and educational environment, there is still a lack of specific planning for developing performance evaluation criteria that align with capacity development and staff motivation, which are essential to meeting the educational objectives of the institution.

Zhu (2015) developed a KPI performance evaluation system for university faculty, providing a foundation for enhancing HR systems in universities. Establishing a KPI framework is crucial for assessing employee performance, especially in medical schools. This underscores the need for a conceptual framework to implement KPIs in academic environments. Various studies, including those by Masron et al. (2012), Dhillon et al. (2013), and Hartanto et al. (2016), highlight the importance of evaluating faculty performance using both traditional and intangible metrics, as well as the role of knowledge management. An effective KPI evaluation system can improve university HR systems and maintain quality and operational effectiveness.

Amin et al. (2017) developed a KPI model using the Balanced Scorecard method to assess faculty members' tacit knowledge, highlighting the importance of measuring intangible aspects like knowledge and skills. Swiatek (2019) discussed using KPIs in European academic libraries to assess their contribution to student research success and service improvement. Yang et al. (2019) introduced a KPI assessment method for innovation capability in technical education, emphasizing innovation awareness and technical skills among students. Al-Sulami (2020) proposed a KPI model to evaluate scholars' tacit knowledge at Iraqi universities. Penindra et al. (2020) used the Malcolm Baldrige Criteria to design a performance measurement system for university faculty, identifying key performance indicators to improve HR management systems.

With the significant increase in the importance of higher education quality for driving development

and international competitiveness, evaluating and improving the performance of faculty and staff in this environment has become extremely necessary. By understanding and correctly applying these theoretical foundations, educational institutions can build an effective and feasible evaluation system that supports individual development and the sustainable growth of the organization.

3. Approach to KPIs at Buon Ma Thuot Medical University

For the research at Buon Ma Thuot University of Medicine and Pharmacy, the target participants are management positions, faculty members, staff, technicians, and logistics personnel, totaling 210 individuals.

The interview process is divided into two phases:

Phase 1: This phase involves assessing the staff's understanding of the KPI concept, the information and methods for implementation in the educational institution, and evaluating the benefits and necessity of applying KPIs at present.

Phase 2: This phase involves developing KPI indicators for each job position through a comprehensive survey of the entire staff, investigating the proportion of employees who self-assess their job group against the university's general regulations, and adjusting the weight of essential indicators accordingly.

The interviews also include discussions with representatives of the university's leadership, departmental units, and some heads of departments to get a general view of the feasibility and perception of implementing this comprehensive performance evaluation system.

In the first survey phase, the results show that 74.6% of the staff believe that applying KPIs is very necessary, 22.2% are uncertain or hesitant, and 3.2% feel that implementation is unnecessary.

The content discussed during the interviews highlighted several important factors that the university needs to consider from both the university's subjective circumstances and the staff's objective perspectives:

Resource Preparation: Adequate resources (human, financial, infrastructure) and time for a trial application are essential.

Consensus and Agreement: There must be consensus among all leaders, faculty, and staff on the development and application of KPIs.

Clear Job Descriptions: Clear and specific job titles and positions need to be established for units and individuals.

Criteria for Evaluation: Establish specific criteria for assessing individual competencies to prevent conflicts between evaluators and those being evaluated. Focus on key performance areas rather than minor tasks, emphasizing final results that align with the main job functions of each position. This approach avoids excessive goals and overlaps in self-assessment and evaluation processes.

For the second survey phase, the approach included providing reference materials, encouraging independent research, and organizing an internal competition to stimulate interest. This competition featured both quantitative and qualitative questions to introduce the drafted criteria and evaluate employees' understanding, concerns, and expectations, as well as the feasibility of application.

The university identified core KPIs for 23 different job positions, allocated corresponding weights, and gathered feedback from over 200 employees. The results showed 83.2% agreement with the content and weight of the main tasks for each position.

Based on the survey results and interviews, criteria for job positions were established with appropriate weight adjustments. Each KPI level includes evaluation tools, assessment methods, and personnel assignments, ensuring accuracy and completeness with periodic data extraction.

The main criteria table uses a column and row weight method, with specific task columns for each of the 23 job positions, including teaching weight, scientific research/innovation weight, brand building weight, school management weight, school administration weight, and social work weight. The total weight aligns with the standards, with a standard evaluation level of 100 points per professional position. Weights are adjusted based on academic titles, degrees, research value, articles, and other incentive policies, according to the Ministry of Education and Training's standard hour conversion regulations.

4. Three-tiered approach to implementing the criteria

Once the criteria content is determined for each position, BMTU decides on the criteria approach in three levels:

Executive Board Level: Issues evaluation and classification regulations, including specific criteria corresponding to job positions.

Union Executive Committee Level: Disseminates the criteria to employees, organizes contests/activities for deeper understanding and explanation of the criteria.

(Xem tiếp trang 87)

Giải			3. Thực hiện giải pháp
Chuyển động	**Quãng đường đi được s (m)**	Độ dịch chuyển d (m)	
Từ trạm xăng đến siêu thị	$s_{XS} = 800m$	$d_{XS} = x_3 - x_2 = 800m$	
Cả chuyến đi	$s = 2.s_{Ns} + s_{NT} = 2.800 + 1200 = 2800$ m	$d = x_4 - x_1 = 1200 - 0 = 1200$ m	
- Đánh giá việc GQVĐ: Khi chuyển động theo một chiều thì quãng đường đi được bằng độ dịch chuyển. Cần phân biệt được độ dịch chuyển và quãng đường đi được.			4. Đánh giá việc giải quyết vấn đề

3. Kết luận

NL GQVĐ & ST là một trong 3 NL chung cần hình thành và phát triển cho HS trong nhà trường. Trong DHVL để PTNL này cho HS GV có thể vận dụng nhiều biện pháp khác nhau, trong đó sử dụng BTTH là một trong những biện pháp khả dĩ. Qua sử dụng BTTH trong DH Vật lí giúp HS rèn luyện khả năng phát hiện và giải quyết những vấn đề thực tiễn một cách hiệu quả, qua đó góp phần hình thành và phát triển NLGQ vấn đề cho HS. Trong sử dụng BTTH phát triển NL GQVĐ cho HS, GV cần lưu ý đưa vào những tình huống gần gũi với thực tiễn cuộc sống hằng ngày và phù hợp với khả năng của HS, đồng thời phải sử dụng chúng một cách linh hoạt trong quá trình tổ chức DH.

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Leadership of Training and Administrative Units Level: Analyzes standards and criteria for human resource development plans, appointments, rotations, rewards, and penalties. Encourages and acknowledges employees' efforts, creating work motivation reflected in income.

Employee Level: Understands the goals and values the criteria bring to individuals and the collective, sets personal goals to increase contributions to the school and the community.

Buon Ma Thuot University of Medicine requires customized KPIs that align with its strategic goals, such as enhancing healthcare education and community service in the Central Highlands of Vietnam. To ensure relevance and consensus, involve faculty, staff, and management in developing these KPIs. Provide training on the importance of KPIs and how to achieve them, and regularly review and update the KPIs to maintain alignment with the university's evolving goals.

5. Conclusions and directions for further research

Effective KPI implementation in Vietnamese universities ensures alignment with institutional vision and mission, fosters accountability and transparency, and supports informed decision-making. KPIs should also enhance professional development and motivation for higher performance.

The principles for KPI implementation must prioritize transparency, data management, consistency, and flexibility. Long-term research is essential to assess the sustainable impact of KPIs on performance and student outcomes. Developing KPIs that focus on student engagement, satisfaction, and overall development, as well as evaluating their impact on research, innovation, and university policies, is critical.

At Buon Ma Thuot Medical University, KPIs offer significant potential to improve staff performance and achieve strategic goals. Despite challenges, careful planning, stakeholder engagement, and continuous review can lead to successful implementation. Further research is needed to explore KPI impacts in Vietnamese universities and establish best practices.

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