

Roles and Challenges of Key Performance Indicators in Higher Education

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Abstract-The use of Key Performance Indicator (KPI) has become extensive and widespread in public and private sectors. Over the last few years, Higher Education Institutions (HEIs) are mandated to track their KPIs to ensure the quality of internal management and to guarantee the excellence of external compliances such as accreditations and audits. It is indeed essential that every HEI identifies KPIs which are vital and presumably achievable. In doing so, this can help the institution understand better the key data needed to highlight its continuous improvement efforts and successes.

Developing KPIs is one step closer to the achievement of the vision, mission and objectives of the institution. According to Mortensen, "A KPI is decided by management, echoes organisational goals is based on legitimate data, is easy to understand and leads to action". This paper aims to inform educational leaders and managers on the roles of key performance indicators' challenges and the vital conditions for the successful implementation of KPI.

In conclusion, a KPI reveals the strengths and weaknesses of the institution. It helps the top management and the stakeholders decide what needs to be strengthened in order to maintain quality culture. On top of this, it can also be used to determine changes within the HEI and can be a basis in comparing other higher education institutions.

One of the key challenges in developing KPI is building suitable and reliable measurement systems. In addition, there is also the lack of involvement of stakeholders in developing the KPI.

There are underlying challenges in developing and implementing KPIs; hence, educational leaders should work closely with concerned authorities to overcome and address the above mentioned challenges for a successful implementation and measurement systems of the KPIs.

Key words KPI, Strategic Plan, Strategic goals, measurement

I. INTRODUCTION

In the academe, especially in Higher Education Institutions (HEIs), there are existing mechanisms working as checkpoints towards achieving set objectives. HEIs need to develop and implement a measurement system in order to evaluate their performance. The Key Performance Indicator (KPI) is very popular in all organisations especially in the higher education sector. As a matter of fact, HEIs nowadays make use of KPIs as part of their Strategic Plan. Hence, it is defined as the financial or non-financial metrics used by organisations to evaluate the success of their Strategic Plan.

Higher education institutions should get the most out of their strengths and discover their weaknesses to minimise problems. Identifying what the institution cannot possibly

do or what is inessential is in reality, a step towards improvement. While these are usually cascaded from the highest governing body down to the delivering units, there will always be thriving differences on implementation; thus yielding different results unique to each unit.

In most cases, universities and colleges best their name for quality through their vision, mission, goals and objectives which are later turned to the outcome they so want to attain. And from these show windows, they frame their roadmaps and craft their policies vis-a-vis standards from accrediting agencies in order to be kept tracked and monitored for sustainability purposes.

To anchor on quality, administrators or supervisors of institutions usually make sure that everything under the system they hold to office harmonizes at a common direction; hence, all possible programs and projects are crafted, proposed and undertaken for such a purpose.

However, since any institution, from a top view, has a wide array of concerns spreading through its allied functions from academics, research, extension, production, linkages, etc., which at specific domains have their equivalent job descriptions, there are setbacks that inevitably confront operations in administration, eventually affecting performance level ratings, credibility, and sustainability.

Performance, when evaluated and scrutinized against standards, doesn't only demand a certain strand to be presented but would actually require details of it to largely contribute to the whole; the very reason why, when preparing programmes subject for accreditation or evaluation, a lot of documents are piled together in respective labels conforming to the requirements.

At the onset of administrative works, the institution usually undergoes strategic planning. It is during this course that heads of each faculty or department gather to align policies, to set developmental plans, and craft proposals as deemed relevant in materializing the vision, mission, goals and objective statements. These, later, when translated to actions are being monitored to see extent of compliance.

In the field of academics alone, performance is not only limited to the diagnostic, formative or summative assessments done inside the classroom on a regular basis as determined by curriculum. There are actually sets of examinations that are regarded more relevant to the institution's face validity, and that is through board exam

results, taken seriously at institutional and national standards.

These are further compared with other institutions' performances and later become a leverage if surpassed, a drive to do better if not. More to this, students, even when already out of the school after finishing their bachelor degree, would still continually contribute to the total performance rate of the school since their career still matters to its connection with the degrees they garnered. A tracer study is one usually conducted to see if the chosen degree matches the career of the graduates.

On another note, institutions also involve linkages with other agencies for mutual sharing of good practices. It is through this activity that improvement as product of benchmark can be adapted. However, when externally-acknowledged evaluators would assess the relevance of such practice, that means rationale of activity, process, outcome and progress are being documented.

While there have emerged a number of accrediting agencies looking into quality assurance, now considered standard by institutions, there are still gray areas along the way; thus, this study shall look into the roles and challenges of Key Performance Indicators (KPIs).

II. STATEMENT OF THE PROBLEM

1. What are the perceived roles and uses of KPIs in the endeavors of the Higher Education Institutions?
2. What challenges are encountered by administrators when developing the KPI?
3. What are the vital conditions for a successful implementation of a KPI?

III. SCOPE AND LIMITATION

This study is limited to identifying roles and challenges of Key Performance Indicators (KPIs) as encountered and experienced by administrators and staff in the Higher Education Institutions.

IV. REVIEW OF RELATED LITERATURE

A Key Performance Indicator is an essential tool in measuring the success of an institution especially in the education sector. HEIs have considered KPI as an effective tool to improve the educational system for both public and private institutions. It is a group of factors that are vital to define the achievement and success of an institution by reflecting its performance. In the education sector, educational KPI is defined as a class of performance measurement which is designed to efficiently evaluate or measure the achievement of the institution.

A KPI, according to Dennis Mortensen, has the following characteristics: 1) echoes organisational goals, 2) is decided by management, 3) provides context, 4) creates meaning on all levels of the organisation, 5) is based on

legitimate data, 6) is easy to understand and 7) leads to action. Therefore, establishing the right action towards meeting the standards of a KPI indicator does not only mean simple and minimum.

Gaither, Nedwek, and Neal (1994) perceived that the academic community and policy makers discovered a system of indicators to increase emblems about the effectiveness and efficiency of higher education institutions. They all concluded that performance, outcomes and results determine funding allocation. For higher education sector, it would be practicable to measure the three main outputs namely teaching and learning, extension of knowledge through research and the application of the knowledge. Lyddon and McComb (2008) recommended that every KPI must include components such as the actual results of every indicator; the target for each indicator; the difference between the actual results and the target results; and the benchmarks.

Parmenter (2010) reiterated that key performance indicators embody a set of measures focusing on the organisational performance which is the most critical for the current and future success of the organisation. KPI should be measured regularly and correlate it to the success of the institution. Arif & Smiley (2004) pointed out similar recommendation that KPIs need to be tracked frequently, and suggested further that if targets are unmet, then systems or processes need to be amended.

The KPIs denote a set of measures directing on the aspects of organisational performance that are the most critical for success of the organisation (Parmenter, 2010). He suggested further that KPIs should be measured regularly and link directly to the success of the institution. In addition, Lyddon and McComb (2008) recommended that every KPI should include components such as the actual results, the target, the difference between actual results and target results and the benchmarks.

Higher education institutions should include all stakeholders in developing their KPI (Arif & Smiley, 2004), and should be directly linked to the core budget (Conlon, 2004). According to Burke (2002), using KPI is essential in the education sector because accountability includes meeting and addressing the needs of students, society and other stakeholders.

Arif and Smiley (2004) further identified the potential Key Performance Indicator relevant to every strategic area for higher education institutions such as information technology and career services. For instance, the KPI on strategic planning should focus on research, satisfaction of all the stakeholders, graduation rates, number of patents, student enrolment and ranking by independent agencies.

Gaither, G., Nedwek, B., & Neal, J. (1994) identified KPIs for career planning, information services and collaborative

partnerships. Germane to this, career planning includes number of faculty industry interactions, percentage of students obtaining full time employment after graduation and percentage of students getting internships. On the other hand, KPIs for information services include amount saved by in-house development of applications, percentage of students with computer access, number of hits on different websites and percentage area of university covered by wireless internet access. Moreover, KPIs for collaborative partnerships with other institutions include number of publications from the faculty-industry partnerships, number of patents, number of students employed in companies and number of published research papers by faculty.

Each Higher Education Institution develops its KPI with different emphasis or focus. Bellentine&Eckles (2009) cited that Ohio State University's KPI focused on resource management, outreach and engagement and diversity, and student learning and academic excellence. However, at Rhodes College, the KPIs are regarded in four lenses. The first is the constituent perspective which includes evaluation of overall educational experience by the students, recruitment and average percentage of needs met. The second is the financial angle which includes resources per student, operating income ratio, resources per faculty, service expenses and viability ratio. The third lens is the internal process perspective which includes first to second year retention rate, average graduate school placement rates and the graduation rate. The final lens is the organisational and human development outlook where the onymetric is number of internships completed.

In Canada, United Kingdom and New Zealand, colleges and universities are mandated to develop their KPI. The KPIs focus on six general areas of institutional performance: student progression in the curriculum; participation of historically underrepresented and marginalised groups; job placement; learning outcomes of each course; research output; and efficiency of learning and teaching (Breakwell&Tytherleigh,2010).

In New Zealand, the Tertiary Education Commission is tasked to publish the KPI in order to evaluate the educational performance of colleges and universities. In the USA, the United States Department of Education publishes the College Scorecard with indicators which are envisioned to provide the stakeholders and the public the performance comparison among higher education institutions.

On the one hand, Canada's KPI are evaluated by the Ministry of Training, Student Assistance Programme office and the HEIs in each Canadian province. The primary objective of this advocacy is to bump into the needs of the marketplace and the students in areas such as computer science (Conlon, 2004). Like USA and New

Zealand, the KPIs measured by the HEIs and the Ontario Ministry of Training are employer satisfaction rate, graduate satisfaction rate, graduate satisfaction rate and student satisfaction rate (McMillan, K., &Datta, D., 2012).

Burke and Minassians (2002) reviewed the performance reports of 29 public HEIs in the United States. The reviews found out that there are lacking common indicators that permit the tracking of performance of every institution. After further investigation, only eight out of 158 KPI were used by the majority of the institutions. These common indicators include graduation, tuition, financial aid, enrollment, sponsored research, degrees awarded, student transfers and licensure test scores. Burke and Minassians recommended that institutions must avoid mandated programmes where legislation should mandate the policy and prescribe the indicators. These indicators should cover the trend data, performance targets, state goals, and peer comparisons. By complying with this, the performance indicators are useful and relevant.

Gaither, Nedwek and Neal (1994) stressed that academic community and policy makers reconnoitered utilising a system of indicators to raise awareness about the effectiveness and efficiency of higher education institutions. Performance, results and outcomes, however, would decide and determine funding allocation. It was concluded that performance indicator sets the parameter intended for evaluating, ranking, measuring, and comparing the productivity, performance or standards of the programme, faculty or the institution in general. Thus educational leaders or the senior management can use these results for decision making.

Frink and Klimoski (2004) concluded that shared expectations are essential for a higher education institution's response concerning its members' accountability. However, it is equally essential to decide the clarity and nature of the expectations of the stakeholders and the degree of alignment of these expectations. Ansel and Gash (2007) acceded that collective governance brings stakeholders together in common understanding and fora to participate in consensus-oriented decision making. This claim was also stressed by Frink and Klimoski (2004) Monahan (2004) that shared expectations are vital for an organisational response to accountability.

Hernandez and Hodges (2001) emphasised the importance of involving and seeking stakeholders' input in developing KPIs. In the long run, there is really a need to satisfy and clarify the expectations and goals of the Ministry of Higher Education and the university in order to enhance KPI processes. Alsete (2005) concluded that at the planning stage, stakeholders need to be informed and provide view on institutional performance and goals. In fact, engaging the stakeholders in the process has proven useful.

Smith (2010) underscored that one key role of KPIs is to give value to the high level aspirations defined in the strategic plan of the organisation. It is vital that KPIs should be linked with the strategic plans. He recommended some conditions for implementing KPIs. These include proper governance context, integration of other key processes, benchmarking with other institutions and consultation with stakeholders.

V. DISCUSSIONS

Roles and Uses of KPIs

The following are the key roles of KPI in the Higher Education Institutions:

Define the focus of the institution - KPI, in retrospect, can help define the focus and what is distinctive about the institution. It is important that KPIs do not need to cover all the matters that an institution does anyway. According to Bellentine (2009), some KPIs are monitored regularly as they are essential to the sustainability of the institution while other aspects are selected simply because these are areas where change was perceived as strategically important. In a nutshell, KPI is a tool that defines the focus and the priorities of the institution.

Performance Checkpoint- With KPIs made transparent and functioning in the university or college system, the whole structure is made aware that there are standards serving as guiding posts to where the institution is heading. Alsete (2005) stressed the importance of monitoring and evaluating the performance of the organisation. Once there is a checker, there is a congruence with standards and actions undertaken by the top management or any member of the academe.

Progress and Development Map- KPIs understood as indispensable factor in any academic or allied undertakings of the academe would mean an automatic consideration to how every beginning progresses into quality-oriented and standard-based outputs. The key role of KPIs is to give additional substance to the aspirations specified in the Strategic Plan. As such, it is really important to note that the KPI should be mapped with the strategic goals and they should not operate separately.

Looking Glass- As an academe subject itself to the indicators of KPIs, there are salient areas which require every individual, especially administrators and faculty, to undergo self-assessment. This is particularly true to the delivery of goods whether it had reached the recipients in a quality manner thereby bearing quality outcomes. Because if end-results show negative effects, remarks would normally boomerang to the university but in the end directed to the main brains of it (teachers and administrators). Therefore, this becomes basis of the upper structure to craft better policies as support system.

Building Block - Since success is being measured through achieved indicators, it is expected for a Higher Education Institution, after being evaluated, to be more up to higher achievements with improved levels of success; hence, with KPIs, previous best are platforms for better performances.

Challenges of Developing & Implementing Key Performance Indicators (KPIs)

The creation of KPI for higher education institutions involves particular difficulties. Developing and implementing measurement systems is one of the challenges in evaluating the performance of every organisation. The following challenges are commonly experienced by educational leaders when developing KPIs:

Lack of engaging governing bodies. One of the most important aspects that needs to be dealt before developing, implementing and measuring KPIs is the engagement of governing bodies starting from the planning stage. Wu (2014) underscored that the involvement of the senior management (boards and committees in particular), key staff, line managers and other stakeholders are very crucial and therefore clarity on their roles should be defined. The key challenge is how broadly these committees, boards and all stakeholders actively engage in the development of KPIs. Therefore, every institution should define the composition of the committees or boards who should be responsible for developing, implementing and evaluating the effectiveness of the KPIs. Since KPIs are strategic, not operational, the boards (Board of Trustees and Board of Directors) should vigorously participate in the planning and developing stage.

Lack of stakeholders' involvement. Hernandez and Hodges (2001) emphasised that when developing KPIs, a large number of stakeholders should be involved. These include current students, alumni, employers of graduates, academic staff, professional bodies, government entities, senior management and the general public. However, one of the challenges that the institution may encounter is the lack of knowledge among the stakeholders on the fundamentals of KPI. As a result, the stakeholders could not contribute properly in crafting the KPI.

Misrepresentation of Data or ending up with irrelevant data. Most of the times, when KPIs are being utilised in the system, there, too, are biases on how interpretations are addressed. Not at all times do figures on specific indicator speak of the generality of performance because KPIs do not necessarily look into how the actuality of the process complement with end results. Parmenter (2010) elaborated that KPIs should address only what are essential. The objectives for developing KPIs are to check if the strategic objectives are achievable and measurable and to collect necessary information which is a basis for monitoring and enhancing these activities.

Failure to benchmark against other institutions. Many institutions fail to benchmark their KPIs against other Higher Education Institutions. It is extremely valuable to benchmark the performance of your institution against other HEIs especially those which are considered competitors. Through benchmarking, the performance of the institution can be compared with other HEIs and therefore this allows the senior management determine what needs to be addressed in the next review.

Lack of Communication or Information Dissemination.

Another challenge that is very common among institutions is that employees or staff are not fully aware of them. Trow (1996) concluded that lack of communication will eventually lead to failure in achieving the set goals. Therefore, the role of the senior management is to conduct orientation and workshop among all the staff and other stakeholders. Everyone in the organisation must be aware of the indicators and they should be fully aware of their responsibilities towards fulfilling these goals.

Failure to address basic questions in formulating the indicators. Expressing the KPI of the institution could be challenging especially if there is no proper training among those who are directly involved in crafting it. One of the basic rudiments KPI is that it should be specific, measurable, attainable, relevant and timely. It is equally essential that people who are involved in developing, implementing and evaluating the KPI should bear in mind the following key questions to ensure that everything is addressed:

- What questions need to be answered through the KPI?
- Do these questions map or link with strategic goals in the Strategic Plan and the Risk Management?
- Are the data collected relevant and useful in answering these questions?
- Are the stakeholders consulted before approving the KPI?
- Have the KPIs been approved by the approving body?
- Are the concerned individuals aware of their responsibilities?
- Are there mechanisms for reviewing the KPIs?

Vital Conditions for the Successful Implementation of KPIs

The following conditions can be established before implementing the KPI. It is really vital that these conditions should be covered in the policy of developing the KPI of every institution.

- Proper governance context must be in place in order to define the specific roles of the concerned boards or committees. It should be clear who should be involved in the planning, implementing, monitoring and reviewing in order to avoid duplication of responsibilities.

- KPIs should be developed in consultation with stakeholders to ensure that the indicators are fit for purpose. The indicators must be agreed by stakeholders especially those who have direct interest in evaluating the overall performance of the institution.
- KPIs should be SMART (specific, measurable, attainable, relevant and timely).
- KPIs should be seen as supporting arm to the targets covered in the strategic planning and risk management. This implies that KPIs are directly linked with other key processes in the institution.
- KPIs should be benchmarked against other institutions most especially those which are direct competitors.
- KPIs should be linked to performance to ensure that something really happens. This implies that “what gets measured gets done”.
- KPIs should focus on indicators which answer specific question. It is better to measure few important indicators well rather than attempting to measure almost everything with irrelevant data.

VI. CONCLUSION

The Key Performance Indicators disclose or reveal the strengths and weaknesses of the institution. It is used to determine changes within the HEI and which can be a basis in comparing higher education institutions. To be most beneficial, performance indicators should be objective, measurable, achievable, reliable and time-bound. Higher education sector should consider KPI not only for performance measurement but also for identifying areas for improvement. It is concluded that KPIs should be directly linked to the Strategic Plan and Risk Management Plan. There are underlying challenges in developing and implementing KPIs; hence, educational leaders should work closely with concerned stakeholders to overcome and address the above mentioned challenges for successful implementation and measurement systems of the KPIs.

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