Conference Paper

Leading the University to Build a Greater Performance

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Abstract

Higher education systems as well as universities in Asian countries have experienced high organizational competitiveness. The quality of university governance is highlighted as a strategic issue for many governments in the region. Research results of this sector indicate that the performance of most universities in Asia move slowly. Compared to other higher educations in the developed countries, many Asian universities are still in the lower positions. Leadership of the university governance is, thus, argued to be central to ensure university organizations survive in the global market. This article overviews the performance of universities in Asia, and discuss some strategies on how universities are to be lead to get a higher level performance within the challenging environment. Further research needs to explore broader insights about the effective leadership models in enhancing university governance.

Keywords: higher education, governance, university, management, leadership

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1. Introduction

Higher education management, specifically the university organization has been a concern for most societies in the world. People of this planet initially have an intense and a long-term interest in this sector. Such a phenomenon exceeds the pecuniary and practical attention of current campus societies [27]. They acknowledge that educating the young people at a higher education level can guarantee a success for the individuals to improve their lives, and profitably contribute to the public [8]. People also can enhance their independent capacities and initiatives – both are valuable elements for living in this global environment. The macro economic impact is also regarded as a form of a human investment in obtaining successful life in the labour market, constitute the future elite society and family, and higher income per capita [6].

However, while globalization of economic, geographic, technological changes influenced the performance of higher education system, these factors have not been successfully incorporated by some developing countries especially in Asia [6, 8]. Students are not well educated to respond the global issues. They have insufficient life skills and managerial capacities. While, mastering these capacities is essential to survive in such an environment and to contribute to the social and economic growth. Leadership of this sector is, thus, challenged as one of the strategic components for developing higher

education systems within the turbulent global factors [2, 9]. This article discusses the performance of Asian universities, and what sorts of leadership behaviours required for obtaining a higher level performance.

2. The Rise of Higher Education and University Research in Asia

Higher education sector has experienced a highest growth across Asia over the last 20 years [25]. This was mostly affected by the increase of school participation rates, society and economic demands for quality human resources, and the indispensable higher education in a future [1, 4]. In responding to this trend, higher education systems in Asia have to expand their educational services by establishing new universities, recruiting new faculty members, diversifying delivery mechanisms, and encouraging participation from private institutions.

Access to Bachelor's degree programmes have been expanded successfully in most middle and low income countries in the region. In the long long-term trends of 1980 to 2011 participation, the gross enrolment ratios for Bachelor's programmes have increased over 10 times over the past four decades in China, Malaysia, Sri Lanka, and Lao People's Democratic Republic Nepal. Where more students in Nepal complete Bachelor's level, from only about 1 out of 100 in 1980 to 14 out of 100 in 2011 [23].

The increased output of undergraduate level was measured using the number of students graduating from first degree in a given year relative to the population of typical age of graduation from first degree programmes. The comparison of gross graduation ratios for first degree programmes in 2000 and 2011, Thailand leads middle-income countries in improving its gross graduation ratio for first degree programmes, from 15% in 2000 to 31% in 2008 [23].

Additionally, to deal with the higher demand for academic staff, higher systems in this region have expanded their graduate education programs. Such a strategy is viewed not only to prepare the required number of academic staff, but to increase the capacity of global economic competitiveness. Many governments also see the expansion of higher educations can contribute to the development of universities as research centres that will yield positive economic returns to the country.

3. Research Contribution to National Development

Research development (R&D) has been regarded as one of the key strategies to secure technological potential since the Second World War. It preserves as an investment in promoting innovations and economic growth. It is evident that many international studies demonstrate a model of relationship in which R&D spending, innovation, productivity and per capita income mutually reinforce each other and lead to long term

growth rates. For example, technology accounts for more than one-half of economic growth in all member countries of the Organisation for Economic Co-operation and Development (OECD) except Canada. Other studies found the rate of return is about four times that from physical capital [4]. In another example, the U.S. Bureau of Economic Analysis estimated 6.5% of R&D contribution to economic growth during 1995-2002 period, up from the longer-term 40-year average of 4.5% (by comparison, the 40-year average contribution of buildings and factories is only 2%). About one-half of output growth and three-quarters of productivity growth are attributable to R&D investment as analysed at industry level indicators [21].

The effects of R&D are not limited to the original investors, which are the private research benefits, but also have live impacts to competitors, other firms, suppliers and customers. A large number of studies estimate the social returns exceed the private returns by 50% to 100% [4, 10, 14]. This is an interesting point because when knowledge leaks out gradually, private benefits decline and spill-over effects increase. Consequently, both types of returns move in different timelines. Private effects generally taper off after a while. There is a time lag before live impacts take effect, but these social returns are considerably more long-lived than private effects.

4. The Role of Universities

Universities have a central role, not only as basic research producers, but also the human capital developers in the form of higher-skilled labour [17]. Some governments and universities have successful research products. In particular, the applied research products such as aviation and space technologies, semiconductors, the internet, nuclear power and nanotechnology – those have provided high return to government. On the other hand, basic research products also have essential roles in the national programs. Compared to the applied research projects, basic research programs strongly relate to developing advanced knowledge and providing people with social benefits. However, many basic research projects have very low returns. They have only indirect effects on the economic growth. But these indirect effects are important and often fostering knowledge formation to private sectors. They provide indispensable impacts outside public sectors [12, 20]. Thus, both types of research products have important roles in supporting to national development programs.

5. Research in Low and Middle Income Countries

Research contribution from high-income to national development is well established, while in middle-income countries this contribution is blurred. In order to increase capita income levels, these middle-income countries have to expand capacity and access to use technologies. To take full advantage of R&D in a country, a large stock of

human capital is needed to help countries accelerate technological developments. The connection between human capital and innovation in low- and middle income countries, and its corresponding impact on productivity, stems mainly from the contribution of skilled workers dedicated to adapting existing technologies: that is, from their contribution to moving closer to the technological frontier rather than expanding it.

6. The Performance of University Governance in Asia

The establishment of high performing universities needs an accountable and stable system, where educational management areas are proportionally operated. Most important to their success is determined by the availability of high quality faculties, committed support staff, well-prepared students, and sufficient resources. However, in the last ten years, [6] reported that most higher education institutions in the developing countries like Asian were constrained by the deficiencies in these areas.

6.1. Global and National Dimensions of Higher Education

The assessment of higher education performance in Asia requires a comprehensive understanding on global dimensions that relate mostly to the trend of higher education development across countries. The old assumption that higher education is comprised by relatively national systems is no longer relevant to be used as an appropriate way of comparisons. It is currently challenged by inter-dependency of nations and universities–driven by the development of information technology, and data transformations worldwide. They exceed national borders while relating with the world whether as institutions and networking in inter-disciplines. Various models of powerful international alienations have been created. These include for example alumni networks, communities of the disciplines, and marketing for foreign student recruitments. In order to be able to cope with such a dynamic environment, university organizations must extend themselves beyond the territorial limits of governments. Following [11], universities need to become global agents.

However, leaders have to consider that the success of universities' governance in such dynamic contexts is determined by the factors including internal capacities and national boundaries. First, since the current universities are the product of local government, their capacities are influenced by national strategies developed in certain countries. Second, universities are the sites for global networking, research development centres for advanced technologies, and for providing people with high skills that are required by labour markets. Third, variation of the power owned by a state facilitates the establishment of high quality universities. This automatically creates dominations of universities' performance all over the world.

6.2. Country and the University Ranking

The development of higher education system in Asia has shown a significant growth in the increased access such as in Indonesia [26]. However, in term of the quality of life of people and development of some higher education institutions in Asia still move slowly. Evident from HDI (Human Development Index) and university ranking in overall countries indicate Asian countries and their university profiles have also not shown a significant progress till today. First, from 188 countries indexed in 2015 HDI, no Asian countries were listed in the top 10 of the countries. Singapore and Hong Kong were as positioned better, respectively in the 11th and 12th. While Indonesia was ranked 100th or in the medium level, that are preceded by China and Thailand, in the 90th and 93th. The highest position is occupied by Norway, and at the lowest level is Niger. Second, the current reports on educational performance across countries indicate Indonesia has not a satisfactory position compared to other top Asian countries. Even to its competitors from the neighbouring countries such as Malaysia, Thailand, and Singapore, Indonesia has not risen in international rankings. For instance in the Top 100 Universities published by the Times Higher Education [22]. Within the 500 University Ranking, no single university is also included in the list (`https://www.timeshighereducation.com/world-university-rankings`). Of more concern, it is also not listed in the 50 top university ranking in Asia [15].

The measure of such competitiveness performance context refers to several indicators, for example the number of research products and web access (Ranking Web of World Universities made by Cybermetrics Lab, 2010), scientific publication in international English website (University World News, 2010), and university management that is able to satisfy stakeholders as well as students and other community members. The world university ranking was published using performance indicators that include (1) learning environment, (2) research volume, (3) income and reputation, (4) citation paper, (5) industry income/innovation, and (6) international outlook.

Of those indicators, academic reputation specifically in the research is a prominent indicator in the assessment. Within this variable, higher education institutions in Indonesia have not yet provided satisfactory contribution or impact to local and global society. A report from UNESCO (2014) shows no single university was listed in research performance of Asian universities which achieved above average ratings by broad subject areas. This indicates education system at this level have not reached the minimum standard of academic reputation in terms of research, and scientific publications.

Country or territory	World class	Excellent	Above average	Below average
China	-	11	65	190
China, Hong Kong	-	4	6	7
India	-	-	8	44
Japan	1	5	30	108
Korea, Rep.	1	4	24	42
Malaysia	–	1	3	8
Singapore	1	2	3	3
Taiwan of China –	-	4	29	35
Thailand	–	–	6	9
Total	3	31	174	446

TABLE 1: Number of universities by research performance in broad subject areas, 2008-2011. – denotes zero. Source: Global Research Benchmarking System (GRBS). Data Link http://dx.doi.org/10.15220/2014/ed/sd/2/t19.

7. Research Performance in Broad Subject Area

Table 1 provides an overview of the research performance of the selected Asian universities. The systems only consider universities that obtain a performance category at least in one broad subject area. Seven countries or territories have universities positioned in the 'world class' or 'excellent' research performance in at least one broad subject area. Japan, the Republic of Korea and Singapore have positions in the world class research performance.

This indicates that top quality, world class research is being conducted within specific subject areas at universities that may not yet have achieved a high place in the overall world rankings. World class research performance at the broad subject levels is relatively rare in Asia. One university in Japan has achieved world class research performance in Physics and Astronomy, and two others in the Republic of Korea and Singapore have achieved world class performance in Materials Sciences. Research performance in Chemistry, Environmental Sciences and Materials Sciences are considered as 'excellent' in Asia. However, overall, most research conducted in broad subject areas in Asian universities is 'below average'.

Based on their publication outputs, 438 Asian universities were identified in 251 niche subject areas. This achievement is measured by the number of niche areas in which a university is active, defined as having publication output above the cut off threshold of 50 publications in the four-year period. Table 2 shows that in terms of comprehensiveness of research areas, China dominates at least in 100 niche areas, 22 medium-range universities, and 155 narrow-range universities.

Table 3 presents the number of universities with niche subject areas ranked with world class performance. It also gives the distribution of niche subject areas by performance category. The percentage of fields in each category represents the total share

	Range			
	Wide	Medium	Narrow	Total
China	13	22	155	190
China, Hong Kong	2	3	2	7
India	0	3	41	44
Japan	7	10	85	102
Korea, Rep.	4	11	27	42
Malaysia	0	3	4	7
Singapore	1	1	1	3
Taiwan of China	2	7	25	34
Thailand	0	2	7	9
Total	29	62	347	438

Table 2: Number of universities by range of research-active areas, 2008-2011. Source: Global Research Benchmarking System (GRBS). Data Link http://dx.doi.org/10.15220/2014/ed/sd/2/t20. Notes for the classification: Wide = university's range of research areas exceeds the threshold in at least 100 niche areas; Medium = exceeds the threshold in 50-99 areas; Narrow = less than 50 areas.

of fields for which the universities have achieved that level of performance. As shown in the first column, China, Hong Kong Special Administrative Region of China and Singapore have the largest number of niche subject areas with world class performance. Over the subject areas in which universities are research active, Singapore has the highest percentage of niche subject areas with world class performance (17.3%) and with excellent performance (29.4%). It is followed by Hong Kong.

List of the 40 Asian universities with world class performance in at least one niche subject area is displayed in the appendix of this paper, ordered by the range of research-active areas, as measured by the number of niche subject areas in which they exceed the publication threshold. Among the 18 wide-range, research-active universities, the National University of Singapore leads in having world class performance in 21 niche areas, followed by Tsinghua University (China), the University of Science and Technology (Korea) and Zhejiang University (China).

8. How Leadership is Viewed in Governing a University Organization

In order to be aligned with the mission of university management, the core concept of management and leadership need to be proportionally overviewed. In broad views, the concept of leadership can be differentiated from management [7]. It can be argued that persons in management positions in higher education institutions do not automatically implement leadership. Rector or Vice-Chancellor, registrars, heads of division, heads of department, directors for instance hold positions that would be regarded as managers. However, whether the persons in these positions engage in leadership or not, they still have to demonstrate an ability to influence followers at work and

		Distribution %			
Country or territory Count	World class number	World class	excellent	Above average	Below average
China	53	0.9	7.3	22.8	69
China, Hong Kong	22	4.6	16.7	53.9	24.8
India	1	0.1	4.4	21.2	74.3
Japan	16	0.5	3.5	27.6	68.4
Korea, Rep.	14	0.7	8	29.7	61.6
Malaysia	6	2.6	0.9	11.7	84.8
Singapore	37	17.3	29.4	42.5	10.7
Taiwan of China	10	0.8	11.6	41.4	46.1
Thailand	0	0	4.5	23.8	71.7
Total	159	1.1	7.2	27.4	64.2

Table 3: Distribution of universities by research performance in niche areas, 2008-2011. Source: Global Research Benchmarking System (GRBS). Data Link: http://dx.doi.org/10.15220/2014/ed/sd/2/t21.

their readiness to do so. As leaders, executives in most enterprises must possess a vision of how their organisations can be improved. They must able to encourage fellow workers to accept that vision, and be ready to take the risks of their actions [19, 29]. University executives are subject to this paradigm. In order to be effective leaders, they need a vision in leading their universities to become successful in the challenging and competitive environment. To lead universities for a higher level performance, leaders of the university organizations have to empower their whole members to be innovative and responsive to the changes, and maximize the use of resources in accomplishing organizational objectives.

9. Strategies in Enhancing Educational Performance within the Global Environment

Leaders have to develop strategies in building a culture that is able to foster a supportive academic condition for the whole members. The following paragraphs introduce some strategies or initiatives that need to be implemented in order to improve institutional capacity of the university organizations.

First, leading a successful university organization requires a leader who have capacities in retrieving the spirit of team works and initiatives in implementing the development programs of research works and publications. Such an approach enables people to provide maximum contributions to the increased organizational performance both at regional and international level. The executives have to design the jobs and organizational environment where people are motivated and committed to work for the success of their organizations [3]. This strategy is argued to promote staff morale at work, and ensure institutional sustainability in a competitive environment.

Second, leaders need to overview and explore what leadership styles are acceptable to the turbulent contexts. Participative model for organizational effectiveness has been examined through a wide range of empirical studies in the United States and other countries as reported by [13, 16]. These studies found this model is typically related positively to long term teamwork performance in terms of organizational outcomes. On the other hand, autocratic models are only effective in certain conditions. However, most authors and researchers argue that the effectiveness of leadership and management is contingent to the existing situations. Reasons are that managing a university or any other higher education institutions is not a simple job. In [5] suggested that as a system, university as a part of higher education organization should adjust its institutional context with environmental demands including new policies, regulations, economic change and culture. Historically, higher education systems in many Asian countries are predominantly embedded within a highly centralized system which was influenced by the colonized situation. At the same time the limited resources of financial support are hampered by domestic economic reconstructions and a global monetary crisis. These result in certain consequences to the management performance, especially will determine the effectiveness of leadership models applied [2]. To improve the organizational performance, thus, executives need to reform culture or tradition that may not be relevant with the current situation [18].

Third, leaders must design a model of management that can incorporate different human resources' potential, talent, and skills. Leaders or managers need to build a supportive organizational culture where people can work individually and collaboratively in teams to the university organization successful.

Fourth, thus, leaders' behaviour using this distributed leadership can reduce the gap between academics and other staff. In the future it becomes the tool to build leadership capacity of academics in the university governance system. University will gain a total support from the whole staff members, create innovative and creative thinking from individuals, and a sustainable and effective leadership in dealing with the challenging environment for the future.

10. Role of the Government

To enhance universities' contribution to the nation building programs, governments need to control university organizations to make sure that they perform their best for the country, promotes equity, and supervise research projects in the areas of basic research are relevant to the country's needs. Universities also have to be organized as a part of the whole system that are operated on the basis of financial transparency and fairness. Since universities have strategic roles for the country, the financial supports must be based on a long-term basis. The budgeting systems must be systematically

Dimension	Actions
Organization / management	• Modify institution's strategic planning • Establish centres of excellence • Set up international colleges • Explicate performance agreements and key • performance indicators • Regularly broadcast evaluation results
Research	• Increase outputs, quality and citations • Reward faculty for publications in top-tier journals • Require doctoral students to publish before graduation
Student	• Modify the ratio of undergraduates to graduates • Proactively recruit international students • Increase exchange or study abroad activities
Faculty	• Recruit high-achieving scholars • Create new contract types for employees • Identify weak performers • Recruit international academic staff
External relations	• Flag ranking results to the public (e.g. university's website or newspaper)

Table 4: Top universities' efforts to promote their high rankings. Source: UNESCo, 2014.

designed and structured consistently in order to help universities develop more realistic programs and use the financial resources proportionally. However, the government must also be limited in intervening organizational policies to let people more innovative in managing educational services and improving universities' research performance.

11. Behaviour and Efforts of Universities in Promoting the Performance

UNESCO (2014) reported how top universities raise their ranking as listed in Table 4.

There are sorts of behaviours that are important for a university in improving capacities to compete in a global environment. Ion the other hand, reviews from research findings of the successful universities leadership, [2] found several behaviors related with leadership effectiveness in higher education institutions as follow. These include behaviours of university leaders who (1) have a clear sense of vision; (2) arrange departments to facilitate an effective direction; (3) have to be considerate; (4) treat the

staff fairly and with integrity; (5) must be trustworthy and having personal integrity; (6) encourage participation and open communication; (7) provide well communication in giving directions; (8) have a role model and credibility; (9) create a collegial work atmosphere; (10) have to be proactive in representing department's concern to the university; (11) provide feedback on performance; (12) provide resources and adjust workloads to stimulate scholarship and research; (14) make academic appointment that enhance department's reputation; and (15) communicate well about the directions.

Research results indicate executives and head of departments implementing those behaviours are found to be successful in establishing a higher level of academic performance. The works of leaders are directed by a clear vision, and thus, becomes a path way of the universities to pursue the highest position in dealing with the challenging environment. They have appropriate directions in developing strategies to establish resonance academic cultures. Effective higher education systems are subject to the establishment of such a condition. This is desperately required by the university governance in facilitating people to create innovations, ventures, and initiatives. In particular, the effective development of research traditions in universities are mostly dependent upon the well established organizational cultures. Leaders, then, must recognize the situation, and employ those effective leadership behaviours in fostering high committed people of the university organization structures.

12. Conclusion

Higher education is regarded by most governments all over the world as the essential sector in building the capacity of people to gain a higher quality of life, and contribute to the increased countries' profile in the competitive environment. High school graduates go to universities in order to enhance individual capacities for living in the challenging world. Educational provisions are treated as the form of human investments that have long-lived impacts on fostering individual capacities to survive in a very competitive global situation. To respond this demand, governments rely mostly on universities' contributions to building high qualified people that can be employed in the strategic positions offered by labour markets. Universities are also expected to produce innovations through research and development programs for promoting the capacity of the countries in the acquisitions of high technological products.

However, in general, the development of most Asian universities still moving slowly. Compared to universities in the US and UK for example, most Asian universities are below the level of performance in terms of the quality as well as research development capacities, reputable research products, and high skilled graduates. This challenged university executives on how they lead higher education institutions within the competitive environment, build strong and effective educational governances. The

appropriate systems must be built in order to provide people with important capacities in learning knowledge, mastering life skills, and building greater individual character. Thus, to enhance the effectiveness of university leadership, executives need to incorporate the changes imposed by the globalization of economic, geographic, technology. Leadership needs to apply a more participative approach to empower people through fostering a spirit of team works for the best of the university governance. This model of leadership becomes an effective tool to build a higher leadership performance in managing the university organizations within these challenging situations. University will gain a total support from the whole staff members, creates innovative and creative thinking from individuals, and a sustainable and effective leadership in obtaining the excellence of universities' contribution to the country.

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