

World Class University: A Literature Synthesis

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ABSTRACT

Discussions and debates about world class university (WCU) continue to increase. Various policies to realize the WCU have been formulated by universities, as well as by governments. To date, however, there has been no consensus about the substance of WCU. This research aims to answer some fundamental questions about WCU, i.e. definition, characteristics, and criteria. The findings revealed that there are some similarities in the understanding of the substance of the WCU. Universities must improve its quality, by continuing to recognize customers' needs and expectations. Improvement in all things, both in terms of academic and non academic at the university should be pursued persistently.

Keywords: world class university (WCU), definition, characteristics, criteria, quality, improvement, academic, non academic.

ABSTRAK

Diskusi dan perdebatan mengenai world class university (WCU) terus meningkat. Berbagai kebijakan mengarah ke WCU sudah diformulasikan oleh beberapa universitas, termasuk juga oleh Pemerintah. Namun demikian, sampai saat ini, belum ditemukan adanya konsensus mengenai substansi WCU. Penelitian ini bertujuan untuk menjawab beberapa pertanyaan mendasar mengenai WCU, yaitu terkait definisi, karakteristik, dan kriteria. Hasil penelitian menunjukkan adanya beberapa persamaan dalam pemahaman terhadap substansi WCU. Universitas harus meningkatkan kualitasnya, dengan terus memahami kebutuhan dan harapan pelanggan. Perbaikan dalam segala hal, baik terkait akademis maupun non akademis harus terus dilakukan secara konsisten.

Keywords: world class university (WCU), definisi, karakteristik, kriteria, kualitas, perbaikan, akademis, non akademis.

1. Introduction

The term "world class" refers to the high standard and quality of business operations. Formerly, the term was widely used for the company, explicitly as the world class company. The company in this level is definitely a company that is able to compete globally. The company is not just demonstrated its superiority in product and process innovation, but more than that, the company has the edge in every aspect of corporate governance efforts. A world class company is a company that continues to create a sustainable competitive advantage (Stock and Lambert, 1992).

In the field of education, discussions of world class education related programs continue to increase, particularly at the level of higher education or university. Education is a focal enabler of the quality of human resources. Quality education with world class standard will be able to produce superior human resources in managing all resources. Moreover, with the increasing number of universities around the world, it brings a high tension to be the leader and the best. On the other hand, universities must be able to accommodate the increasing demand from the local community and also the ever-changing expectations of parents and workers. Mok (2005) concluded that the ideology of the university is now more directed to the ideology of the market and must be managed effectively and efficiently.

Currently, universities around the world strive to be a world class university (WCU). In fact, many educational institutions claim itself as a "world class" university (Altbach, 2004; Deem et al., 2008). This status is believed will give impact on the value of the university (Byun et al., 1995). This eventually triggers the existence of discussion and debate about the definition and the substance of the WCU. A wide range of criteria has been developed by international rankings institutions around the world. However, there has been no consensus on the concept of the WCU (Brown, 1995).

In many countries, various policies to realize the WCU continued formulated. In this regard, some universities, especially in developing countries, are improving themselves towards international standard and quality. Furthermore, in some countries, these efforts are supported by the Government through various

policies and investments, e.g. Chinese Government (Yang and Welch, 2012; Huang, 2015) and the Government of South Korea (Byun et al., 1995; Jang and Kim, 1995). The Government and the university cooperate synergistically to develop every aspect of the university's quality.

To date, the university that has been widely acknowledged as WCU is still very few. Mostly, these universities are very elite universities such as Oxford University, Cambridge University, and Harvard University. No one doubts the quality of these universities. For other universities, especially for young and growing universities, require a great effort to be WCU.

2. Research Scope and Questions

The study on WCU has been published in various journals and books. This research aims to answer some fundamental questions about WCU. Specifically, it limits the literature search from some databases, such as sciencedirect, inderscience, emerald, Jstor, and springerlink. Based on the results, obtained some of the journals and books on WCU study relevant to the scope of this research. It published during the year 2004 to 2017. These journals and the books will be the main references for this research.

Early initiation of this research will answer selected questions as follows:

1. What is the definition of world class university?
2. What are the characteristics of a world class university?
3. What are the criteria for university rankings?

3. World Class University: Definition, Characteristics, and Criteria

3.1 The Definition of World Class University

Schonberger (1986) stated that being a "world class" means to make improvements based on market demands, faster and continuously. This suggests that to be the world class organization, it takes a thorough understanding of the needs and expectations of customers. In addition, it takes a quick and appropriate response in meeting those needs and expectations. Organizations should understand its current position and perform continuous improvements effectively (Kasul and Motwani, 1994).

In the context of the university, the customers are all parties who get the added value of the core processes of the university. Customers of university consist of many parties, depending on its mission (Montesinos et al., 2008). On a mission of teaching, university customers include students, prospective students, parents, and workers. On a mission of research, university customers include SME enterprises, industry, and government. On a mission of community service, university customers include SMEs, companies, and all parties in which the university participates in the social activities.

It is not known exactly when the first time the term WCU began to appear. Yet, scientific publications and articles related to it began appearing in the early 2000s. In those years, one can find excessive promotion of universities that promotes itself as WCU. However, there is no adequate justification of the claim. Therefore, we need an appropriate understanding of the WCU.

Stock and Lambert (1992) stated that in order to succeed, companies must have the vision to be "world class", committed to that vision, and manage all resources to realize that vision. Consequently, the vision of becoming a world class must be owned by every organization, as well as by every university. Nevertheless, the clear definition and concept of the WCU is still lacking. It depends on the context. Commonly, it is associated with the university league tables and indicators used to rank the universities (Deem et al., 2008). Some definitions and concepts from previous literatures are summarized in table 1.

Table 1. Summary of the definitions of WCU

Author(s)	Definition
Altbach (2004)	Top rank university based on international standards of excellence.
Aula and Tienari (2011)	The university that has a reputation internationally.
Ramaprasad (2011)	An ecology of institution with highly differentiated but tightly integrated visions.
Nazarzadeh Zare et al. (2016)	National and global leader in terms of teaching, research, innovation, and in producing graduates who become leaders in the public and private sectors.

Based on table 1, it can be seen that only few of researchers who wrote explicitly about the definition of the WCU in their paper. However, generally, the definition associated with the general concept of "world class". From the table, a conclusion can be drawn regarding the definition of the WCU. WCU is a University that has a strong commitment to excellence in the quality of inputs, processes, and outputs; so it has a worldwide reputation and in the top universities rank. This definition has broad implications, that a WCU is the outcome of continuous and hard efforts and of the synergy between all parties.

3.2 The Characteristics of World Class University

An understanding of the characteristics of WCU is crucial for the entire academic communities, particularly for those who have a structural position in the university. Based on these characteristics, the university leaders can evaluate the performance of the university. Furthermore, with a thorough study, a variety of programs and policies will be formulated to direct all resources in the university to perform continuous improvements to realize WCU. Some characteristics of WCU from previous literatures are summarized in table 2.

Table 2. Summary of the characteristics of WCU

Author(s)	Characteristics
Altbach (2004)	Excellence in research (with top quality professors), academic freedom & an atmosphere of intellectual excitement, good governance of the institution, adequate facilities for academic work, adequate funding (to support research and teaching, maintaining a research university).
Mok (2005)	“Deep collaboration” with local and international institutions, high quality (research, teaching and learning process, management review, and governance), <i>international benchmarking</i> .
Montesinos et al. (2008)	Give contribution to societies and public sectors, through dimensions of entrepreneurship and innovation.
Aula and Tienari (2011)	Merger to synergize with other entities and to improve the reputation of the institution.

Based on table 2 can be drawn some lessons related to the characteristics of WCU. The main characteristics of WCU is on its quality; quality of inputs (i.e. leaders, professors, staffs, facilities, and fund), quality of processes (i.e. teaching and learning, and research), as well as quality of outputs (i.e. graduates and other productions). In addition, there are other characteristics of WCU, which related to collaboration and merger. Mostly, the quality of the inputs is very difficult to be conformed by many universities, particularly by young university. Collaboration and merger aim not only to improve the quality of inputs that affect the quality of the processes and outputs, but also to develop intellectual atmosphere of the university. This will encourage university to continue to work and contribute, both locally and globally.

3.3 The Criteria of World Class University

Principally, every university has certain criteria in assessing its performance. Nevertheless, recognition as a WCU is obtained based on the university ranking relative to other universities, around the world. The main reasons of the university ranking are to provide information that will assist customers in selecting universities, as part of the marketing strategy of the institution, and to motivate the institution to compete through the quality improvement initiations (Buena-Casal et al., 2007). A common criticism of the university rankings, on the ground that most of them have no clear on its criteria and methodologies (Ishikawa, 2009; Saisana et al., 2011). Despite the criticism, universities keep focus on the criteria used for university rankings.

Bowman and Bastedo (2011) proved that the result of the university rankings affected the public perception of a university in the long term. The top ranked universities will likely continue to have a reputation as WCUs. It is known as “anchoring effect”. University rankings results become the measure of university prestige and its influence on other institutions (Pusser and Marginson, 2013; Rodríguez-Pomeda and Casani, 2016), as well as become branding tool in leveraging niche market (Rhoads et al., 2001).

Some university rankers have established several criteria for assessing universities around the world. The most prominent university rankers, for instance Shanghai Jiao Tong University (SJTU) and Times Higher Education Supplement (THES), are become main reference to judge WCUs (Marginson, 2007a; Ishikawa, 2009; Saisana et al., 2011). SJTU stressed that higher education is about scientific research and noble prize and not on teaching, community development, or contributions to local and global communities. On the other hand, THES stressed that higher education is about building reputation and on international marketing, and not on teaching, research and scholarship (Marginson, 2007b). The difference in thoughts of the university, making the criteria used in the assessment is also different. Several previous studies have done a review of criteria used by the university rankers. A summary of these criteria can be seen in Table 3.

Based on table 3, it can be concluded that although there are some differences in criteria used, but they are actually in the same manner. All agreed that the WCUs have a superior academic quality and

performances. Different criteria, i.e. beside teaching and research, are developed by Montesinos et al. (2008) to complement the existing criteria. These criteria put more emphasis on the development of university in term of its contribution to the community and the public sector.

Existing criteria in judging universities have been very comprehensive. A thorough study of each criteria, including the advantages and disadvantages of university rankings, can refer to the work of Shin et al. (2011). Accordingly, the university must specify the targets will be reached, as well as performing a self-evaluation based on the criteria. Determining of the target achievement is important for university to be able to focus more on managing its resources. Self-evaluation aims to know the criteria in which severely lacking and need to be improved. By doing so, the quality of teaching, research and community services will increase, and eventually the university will become a WCU.

Table 3. Summary of criteria for university rankings

Author(s)	Subject(s) of study	Criteria
Buela-Casal et al. (2007)	SJTU, THES, CEST (Center for Science and Technology Studies), Asia Week.	Quality of research, reputation surveys, human resources, beginning characteristics, material resources, outputs, learning process.
Marginson (2007a)	SJTU, THES, CHE (Centre for Higher Educational Development).	Research performance and reputation, nobel prize, reputational survey, student. internationalization, "spurious holistic (summative) rank based on chosen criteria".
Montesinos et al. (2008)	EFQM (European Foundation for Quality Management).	Social, enterprising, innovative dimensions.
Aguillo et al. (2010)	SJTU, THES, Webometrics, HEEACT (Higher Education and Accreditation Council of Taiwan), CWTS (Centre for Science and Technology Studies).	Research performance, alumni and staff winning nobel/prizes, prestige, student faculty-ratio, proportions of international professors and international students, data extracted from commercial search engines (number of web pages, documents, papers, and external inlinks).
Huang (2012)	Quacquarelli Symonds (QS)	Research quality, graduate employability, teaching quality, and international outlook.
Shehatta and Mahmood (2016)	SJTU, QS, THES, US News & World Report Best Global University Rankings (USNWR), National Taiwan University Ranking (NTU), and University Ranking by Academic Performance (URAP)	High research quantity, quality and excellence; high international outlook/visibility; the very highly sound funds/finance; in-demand degree programs; large and diverse sources (endowment & income) and close cooperation with business, industry and community.

4. Conclusions and Implications

This initial research has provided a synthesis of the literature related to WCU, i.e. definition, characteristics, and criteria. Although the number of literatures studied is fairly limited, this research has reached its aims. The findings revealed that there are some similarities in the understanding of the substance of the WCU. The differences on insights that exist contribute complementary thoughts.

In general, the concept of world class for university has the same meaning with the concept of world class for company. Universities must improve its quality, by continuing to recognize customers' needs and expectations. Given the broad dimensions of quality in higher education, the characteristics of WCU are also somewhat diverse. However it can also be inferred that the WCU has excellences in many fields, both academic and non academic. These excellences can be acquired through collaboration and merger (Shattock, 2017). This will contribute to boost the reputation of young universities (Aula and Tienari, 2011).

Universities must fully embrace globalization in awareness of its challenges, and search for the best way to deal with it. Governance reform in universities must be made so that universities have a system that is able to compete in this global era. Universities should improve themselves continuously, in order to provide high quality services for their local and global customers. The enablers of WCU must be integrated and consistently developed. An understanding of the interrelations of these enablers and also the ability to manage all resources holistically is the main capital for the university to succeed (Smith, 1995).

Way to become a WCU is a long journey. The characteristics and criteria of WCU serve as significant information for the university in formulating various policies and strategies. Nevertheless, such strategies and policies should be made with reference to the customers' needs and expectations. Too much effort to be WCU in terms of ranking will be meaningless, if the efforts don't add value to all customers. The University

should comprehend its mission, in order not to get caught up in undue competition. Finally, a culture that supports the "improvement" in all things, both in terms of academic and non academic at the university should be pursued persistently. This culture has an important role in shaping behaviors and norms within the university. In the absence of adequate culture, it will take a long time for a university to be a WCU.

References

1. Aguillo, I.F., Bar-Ilan, J., Levene, M., Ortega, J.L., 2010. Comparing university rankings. *Scientometrics* 85, 243-256. doi:10.1007/s11192-010-0190-z.
2. Altbach, P.G., 2004. The Costs and Benefits of World-Class Universities. *Academe* 90, 20. doi:10.2307/40252583.
3. Aula, H., Tienari, J., 2011. Becoming "world-class"? Reputation-building in a university merger. *Crit. Perspect. Int. Bus.* 7, 7-29. doi:10.1108/17422041111103813.
4. Bowman, N.A., Bastedo, M.N., 2011. Anchoring effects in world university rankings: exploring biases in reputation scores. *High. Educ.* 61, 431-444. doi:10.1007/s10734-010-9339-1.
5. Brown, R., 2013. Debate: Do we really need world-class universities? *Public Money Manag.* 33, 91-92. doi:10.1080/09540962.2013.763413.
6. Buela-Casal, G., Gutiérrez-Martínez, O., Bermúdez-Sánchez, M.P., Vadillo-Muñoz, O., 2007. Comparative study of international academic rankings of universities. *Scientometrics* 71, 349-365. doi:10.1007/s11192-007-1653-8.
7. Byun, K., Jon, J.-E., Kim, D., 2013. Quest for building world-class universities in South Korea: outcomes and consequences. *High. Educ.* 65, 645-659. doi:10.1007/s10734-012-9568-6.
8. Deem, R., Mok, K.H., Lucas, L., 2008. Transforming Higher Education in Whose Image? Exploring the Concept of the "World-Class" University in Europe and Asia. *High. Educ. Policy* 21, 83-97. doi:10.1057/palgrave.hep.8300179.
9. Huang, F., 2015. Building the world-class research universities: a case study of China. *High. Educ.* 70, 203-215. doi:10.1007/s10734-015-9876-8.
10. Huang, M.-H., 2012. Opening the black box of QS World University Rankings. *Res. Eval.* 21, 71-78. doi:10.1093/reseval/rvr003.
11. Ishikawa, M., 2009. University Rankings, Global Models, and Emerging Hegemony: Critical Analysis from Japan. *J. Stud. Int. Educ.* 13, 159-173. doi:10.1177/1028315308330853.
12. Jang, D.-H., Kim, L., 2013. Framing "world class" differently: international and Korean participants' perceptions of the world class university project. *High. Educ.* 65, 725-744. doi:10.1007/s10734-012-9573-9.
13. Kasul, R.A., Motwani, J.G., 1994. IDENTIFICATION OF WORLD CLASS MANUFACTURING FACTORS: A SYNTHESIS OF LITERATURE. *Int. J. Commer. Manag.* 4, 50-68. doi:10.1108/eb047287.

14. Marginson, S., 2007a. Global University Rankings: Implications in general and for Australia. *J. High. Educ. Policy Manag.* 29, 131-142. doi:10.1080/13600800701351660.
15. Marginson, S., 2007b. Global university rankings: where to from here?, in: *Ranking Systems: Universities of Choice. Presented at the Asia-Pacific Association for International Education*, National University of Singapore.
16. Mok, K., 2005. The quest for world class university: Quality assurance and international benchmarking in Hong Kong. *Qual. Assur. Educ.* 13, 277-304. doi:10.1108/09684880510626575.
17. Montesinos, P., Carot, J.M., Martinez, J., Mora, F., 2008. Third Mission Ranking for World Class Universities: Beyond Teaching and Research. *High. Educ. Eur.* 33, 259-271. doi:10.1080/03797720802254072.
18. Nazarzadeh Zare, M., Pourkarimi, J., Zaker Salehi, G., Rezaeian, S., 2016. In search of a world-class university in Iran. *J. Appl. Res. High. Educ.* 8, 522-539. doi:10.1108/JARHE-03-2016-0021.
19. Pusser, B., Marginson, S., 2013. University Rankings in Critical Perspective. *J. High. Educ.* 84, 544-568. doi:10.1353/jhe.2013.0022.
20. Ramaprasad, A., 2011. Envisioning a world-class university system for India. *Int. J. Technol. Manag. Sustain. Dev.* 10, 45-54. doi:10.1386/tmsd.10.1.45_1.
21. Rhoads, R.A., Li, S., Ilano, L., 2014. The Global Quest to Build World-Class Universities: Toward a Social Justice Agenda. *New Dir. High. Educ.* 2014, 27-39. doi:10.1002/he.20111.
22. Rodriguez-Pomeda, J., Casani, F., 2016. Legitimizing the world-class university concept through the discourse of elite universities' presidents. *High. Educ. Res. Dev.* 35, 1269-1283. doi:10.1080/07294360.2016.1160877.
23. Saisana, M., d'Hombres, B., Saltelli, A., 2011. Ricketty numbers: Volatility of university rankings and policy implications. *Res. Policy* 40, 165-177. doi:10.1016/j.respol.2010.09.003.
24. Schonberger, R., 1986. *World class manufacturing: the lessons of simplicity applied*. Free Press ; Collier Macmillan, New York : London.
25. Shattock, M., 2017. The "world class" university and international ranking systems: what are the policy implications for governments and institutions? *Policy Rev. High. Educ.* 1, 4-21. doi:10.1080/23322969.2016.1236669.
26. Shehatta, I., Mahmood, K., 2016. Correlation among top 100 universities in the major six global rankings: policy implications. *Scientometrics* 109, 1231-1254. doi:10.1007/s11192-016-2065-4.
27. Shin, J.C., Toutkoushian, R.K., Teichler, U. (Eds.), 2011. *University Rankings*. Springer Netherlands, Dordrecht.
28. Smith, S., 1995. World-class competitiveness. *Manag. Serv. Qual. Int. J.* 5, 36-42. doi:10.1108/09604529510100387.

29. Stock, J.R., Lambert, D.M., 1992. Becoming a “World Class” Company With Logistics Service Quality. *Int. J. Logist. Manag.* 3, 73-81. doi:10.1108/09574099210804822.
30. Yang, R., Welch, A., 2012. A world-class university in China? The case of Tsinghua. *High. Educ.* 63, 645-666. doi:10.1007/s10734-011-9465-4.