

STRATEGIES FOR BUILDING WORLD-  
CLASS UNIVERSITIES IN YEMEN WITH  
SPECIFIC REFERENCE TO THE MALAYSIAN  
EXPERIENCE

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We hereby declare that we have checked this thesis and in our opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Doctor of Philosophy.

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## **STUDENT'S DECLARATION**

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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*"Education is the most powerful weapon we can use to change the world- Mandela*

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## ABSTRAK

Mewujudkan Universiti Bertaraf Dunia telah menjadi obsesi global sejak sedekad yang lalu. Kerajaan di seluruh dunia telah meletakkan pendidikan tinggi dan pembangunan sistem penyelidikan sebagai tumpuan strategi ekonomi negara. Oleh itu, bagi mana-mana negara telah membangun atau sedang membangun, membina sekurang-kurangnya satu universiti bertaraf dunia diperlukan untuk mencapai kemakmuran negara. Walaupun beberapa kajian tentang universiti bertaraf dunia telah dijalankan, kajian ini merupakan kajian empirikal yang pertama dilakukan. Kajian ingin bertujuan untuk membangunkan strategi bagi membina universiti bertaraf dunia di Yaman dengan mengambil kira pengalaman Malaysia. Untuk mencapai matlamat tersebut, kajian ini telah mengambil dua langkah penyelidikan. Langkah pertama adalah untuk menyiasat keadaan semasa institusi pendidikan tinggi Yaman dan faktor-faktor yang menghalangi Institusi Pendidikan Tinggi Yaman daripada disenaraikan dalam kalangan universiti bertaraf dunia. Data bagi bahagian kajian ini diperolehi melalui kaedah kualitatif dengan mengadakan sesi temu bual secara individu dan telefon dengan pengurusan tertinggi Kementerian Pendidikan Yaman. Langkah penyelidikan kedua dijalankan untuk mengetahui faktor kejayaan universiti-universiti Malaysia untuk bersaing dan menjadi universiti bertaraf dunia dalam masa yang singkat. Langkah kedua ini diperolehi menggunakan data kuantitatif menggunakan soal selidik yang diedarkan kepada pengurusan atasan universiti-universiti Malaysia. Menggunakan data kuantitatif dengan mengaplikasikan Teori Sumber (RBV), langkah kedua penyelidikan ini bertujuan untuk menyiasat hubungan antara ciri-ciri universiti bertaraf dunia dan status universiti-universiti Malaysia. Kajian ini juga ingin mengkaji pengaruh Kepimpinan Negara Malaysia dan Pelan Strategik Negara Malaysia sebagai pemboleh ubah moderator di antara hubungan antara ciri-ciri universiti bertaraf dunia dan universiti-universiti yang di kaji. Teknik pensampelan bertujuan telah digunakan untuk mengumpul data daripada pihak pengurusan tertinggi di 28 universiti awam dan swasta di Malaysia. Sampel terdiri daripada 126 responden daripada pihak pengurusan atasan di universiti-universiti Malaysia. Perisian pemodelan persamaan struktur (PLS) digunakan untuk mengkaji hipotesis-hipotesis kajian. Hasil penyelidikan ini berjaya menyokong hubungan di antara ciri-ciri universiti bertaraf dunia dan status universiti-universiti di Malaysia. Penumpuan bakat, tadbir urus yang bermanfaat dan kepelbagaian sumber didapati mempunyai hubungan yang signifikan dengan status berkelas dunia universiti-universiti Malaysia. Kepimpinan negara sebagai pemboleh ubah moderator tidak mempengaruhi hubungan antara kepelbagaian sumber tetapi berjaya menyokong hipotesis mengenai hubungan di antara penumpuan bakat dan tadbir urus yang bermanfaat dengan status universiti bertaraf dunia. Di samping itu, Pelan Strategik Negara telah didapati dapat memperkukuh hubungan di antara penumpuan bakat, tadbir urus yang bermanfaat dan kepelbagaian sumber dengan status universiti-universiti Malaysia. Kajian ini telah memberikan sumbangan secara teori dan praktikal serta pandangan yang lebih dalam dengan penambahan ciri-ciri universiti bertaraf dunia berdasarkan universiti-universiti di Malaysia. Implikasi teori dan praktikal telah dibahaskan dan cadangan penyelidikan masa depan telah dicadangkan. Kesimpulannya, kajian ini telah membantu menghasilkan strategi untuk membina universiti bertaraf dunia di Yaman berdasarkan pengalaman Institusi Pengajian Tinggi Malaysia. Hal ini juga menjimatkan masa dan kos penggubal dasar Pendidikan Tinggi Yaman.

## ABSTRACT

Creating World-Class Universities (WCUs) has become a global obsession over the past decade. Governments around the world have placed higher education and research system development at the heart of their national economic strategies. Therefore, for any country, whether developed or developing, building at least one world-class University is necessary to achieve prosperity of the nation. Although a few studies about world-class universities have been conducted, this study is the first empirical study. In this study, researcher aimed to develop a strategy for building world-class universities in Yemen taking into consideration the experience of Malaysia in this particular field. To achieve this goal, this study has taken two directions of investigation. The first direction was to investigate the current situation of Yemen higher education institutions and the factors that hamper YHEIs from being listed among World-Class universities. The data for this portion of the study was gained through qualitative method with interview data. The interview data was obtained through in-person and phone interview with five top Management of the Ministry of Yemen higher education. The second direction was to find out the success factors that could led the Malaysian universities to compete and became world-class universities in a short time. This second direction was obtained by quantitative data throughout questionnaire distributed to the top management of the Malaysian universities. Using quantitative data and by applying the resource based view theory supported by contingency theory, this study aimed to investigate the relationship between the world-class university characteristics and its world-class status in Malaysian universities. This study also determines the influence of National Leadership and National Strategic Plan as moderating variables on the relationship between world-class characteristics of the university and its world class status. A judgment/purposive sampling technique was applied to collect data from top management employees in 28 public and private universities in Malaysia. The sample consist of 126 respondents of the top management in the Malaysian universities. A PLS structural equation modelling software was applied to examine the direct and moderating effects hypotheses. Results of this study succeeded to support hypothesized relationship between world-class university characteristics and Malaysian university status. Concentration of Talent, favorable Governance and Abundant Resources were found to have a significant relationship with the Malaysian university world-class status. National Strategic Plan and National Leadership was found to moderate the relationship by strengthening the relationship between the concentration of talent, favorable governance and abundant resources and Malaysian universities status. Theoretical and practical implications were discussed and several insights for future research were identified and proposed. In brief, this research helped to produce strategies for building world-class universities in Yemen learning from the Malaysian experience, which saves time and cost of the Yemen higher education policy makers. Among the recommendations are 1) Adopting the Malaysian strategic plan 2007-2010, 2011-2015 and 2015-2025 especially the transformation agenda and establishing the Apex universities, 2) the factors (quality of students, staff, researchers, good governance and abundant resources) that have been examined in this study represents success factors to gain WCUs which Yemen should follow and apply.

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## LIST OF ABBREVIATIONS

WCUs	World-Class Universities
YHEIs	Yemen Higher Education Institutions
HDI	Human Development Index
MoHESR	Ministry of Higher Education and Scientific Resrach
MTVE	Ministry of Technical and Vocational Education
GDP	Gross Development Product
QA	Quality Assurance
GII	Global Innovation Index
R&D	Research and Development
QS	Quacquarelli Symonds of World university Ranking
ARWU	Academic Ranking of World Universities
THE	Times Higher Education of World University Ranking
MOHE	Malaysian Ministry Of Higher Education
NHESP	National Higher Education Strategic Plan
PSPTN	Pelan Strategik Pengajian Tinggi Malaysia
SEA	South-East Asia
NEB	National Education Blueprint
CAPs	Critical Agendas Programs
RBV	Resource-Based View
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
LERU	League of European Research Universities
GVA	Gross Value Added
PLS	Partial Least Square

## REFERENCES

- Abdullah, N. A., & Abdul Rahman, S. (2011). *The National Higher Education Strategic Plan 2: Malaysia's global reach: a new dimension*: Ministry of Higher Education Malaysia.
- Ahmad, A. R., Farley, A., & Kim-Soon, N. (2013). Funding Reforms in Malaysian Public Universities: Transitions towards Competitive Funding. *Australian Journal of Basic and Applied Sciences*, 7(10), 553-561.
- Ahmed, H. O. K. (2015). Strategic Approach for Developing World-Class Universities in Egypt. *Journal of Education and Practice*, 6(5), 125-145.
- Al-haimi, B., Ab Hamid, M., & Hujainah, F. (2018). Factors Affecting Yemen Higher Education Institutions Performance: Challenges & Obstacles. *International Journal of Engineering & Technology*, 7, 256-260.
- Alden, J., & Lin, G. (2004). Benchmarking the characteristics of a world-class university: Developing an international strategy at university level. *Leadership Foundation for Higher Education, Londres*.
- Ali, A. A. (2018). Strategic planning—organizational performance relationship: Perspectives of previous studies and literature review. *International Journal of Healthcare Management*, 11(1), 8-24.
- Allen, K. E., Bordas, J., Hickman, G. R., Matusak, L. R., Sorenson, G. J., & Whitmire, K. J. (2006). Leadership in the twenty-first century. *IEEE Engineering Management Review*, 34(2), 60-67.
- Almutahar, M. (2005). *Challenges that face Yemen higher education: Current situation and the future vision*.
- Alotaibi, G. B. G., Yusoff, R. Z. B., bin Mohd Mokhtar, S. S., & bin Taib, C. A. (2016). Testing The Moderation Role Of Leadership For Quality In The Relationship Of Quality Management Practice And Innovation Performance. *International Journal of Economics, Commerce and Management*, IV( 11).
- Alshami. (2005). *National Strategy for the Development of Higher Education in Yemen*.
- Alsurori, M., & Salim, J. The Higher Education System In Yemen: Learning From Malaysian Experience.
- Altbach, P. (2015). The costs and benefits of world-class universities. *International Higher Education*(33).
- Altbach, P. G. (2004). The costs and benefits of world-class universities. *Academe*, 90(1), 20.

- Altbach, P. G. (2009). Peripheries and centers: Research universities in developing countries. *Asia Pacific Education Review*, 10(1), 15-27.
- Altbach, P. G., & Balán, J. (2007). *World class worldwide: Transforming research universities in Asia and Latin America*: JHU Press.
- Altbach, P. G., & Salmi, J. (2011). *The Road to Academic Excellence : The Making of World-Class Research Universities*. doi:Washington DC 20433.
- Aluwaseg, A. (2013). Yemen's brain drain: The other side of the crisis Retrieved from <http://www.arabnews.com/news/461714>. Retrieved from <http://www.arabnews.com/news/461714>.
- Anaam, M. A., Alhammedi, A. O., & Kwairan, A. A. (2009). The status of quality assurance and accreditation systems within higher education institutions in the republic of Yemen. *Quality in Higher Education*, 15(1), 51-60.
- Anderson, D., Johnson, R., & Training, E. (1998). *University autonomy in twenty countries*: Department of Employment, Education, Training and Youth Affairs Canberra.
- Antony Weir, J. K., Silke Blohm. (2016). *Support for research management and governance in Malaysia: Report from a two-day workshop*. Retrieved from The Association of Commonwealth Universities, Woburn House, 20-24 Tavistock Square, London WC1H 9HF, United Kingdom: [https://www.acu.ac.uk/publications/?filters\[submit\]=Search&filters\[author\]=285](https://www.acu.ac.uk/publications/?filters[submit]=Search&filters[author]=285)
- Arasa, R., & K'Obonyo, P. (2012). The relationship between strategic planning and firm performance. *International journal of humanities and social science*, 2(22), 201-213.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing research*, 396-402.
- Arndt, H. W. (1984). The role of political leadership in economic development. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 5(1), 51-63.
- Arts, A. A. o., & Sciences, a. (2015). *Public research universities: Why they matter*.
- Asimiran. (2009). Governance of public universities in Malaysia. *PhD thesis, University of Malaya*.
- Azman, N. (2012). Malaysian public universities governance system: A compromise between collegiality, autonomy and corporate management approaches. *International Journal of Knowledge, Culture and Change Management*, 11(5), 115-133.
- Azman, N., Sirat, M., & Karim, M. A. (2010). Building future scenarios for Malaysian universities. *Journal of Asian Public Policy*, 3(1), 86-99.

- BABALOLA, A. A. (2014). University Autonomy And Good Governance :Text Of A Lecture. *2014 Conference Of The Committee Of Prochancellors Of Nigerian Universities*.
- Bailey, J. E., & Pearson, S. W. (1983). Development of a tool for measuring and analyzing computer user satisfaction. *Management science*, *29*(5), 530-545.
- Baker, M. J. (2000). Selecting a research methodology. *The marketing review*, *1*(3), 373-397.
- Bank, W. (2011). *World development report 2011: Conflict, security, and development*: World Bank.
- Barney, J. (1991). The resource based view of strategy: Origins, implications, and prospects. *Journal of management*, *17*(1), 97-211.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.
- Bazeley, P. (2003). Teaching mixed methods. *Qualitative Research Journal*, *3*, 117–126.
- Bennett, J. A. (2000). Mediator and moderator variables in nursing research: Conceptual and statistical differences. *Research in nursing & health*, *23*(5), 415-420.
- Berry, B. W. (1997). *Strategic Planning Work Book for Nonprofit Organizations*. Wilder Follllldation. : Amherst, H. (Ed.), Publishers.
- Blueprint, M. E. (2015). Blueprint 2015-2025 (Higher Education). *Ministry of Education Malaysia, Putrajaya*.
- Bogdan, R., & Biklen, S. (1998). Introduction to qualitative research in education. *England: Pearson*.
- Bok, D. (2015). *Higher education in America*: Princeton University Press.
- Brown, R. (2013). Debate: Do we really need world-class universities? *Public Money & Management*, *33*(2), 91-92.
- Burns, R. B., & Bursn, R. B. (2000). Introduction to research methods.
- Byrne, B. M. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*: Routledge.
- Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*: John Wiley & Sons Australia.
- CGTN (Producer). (2018, 10/10/2018). What is world-class university? Retrieved from <https://www.youtube.com/watch?v=Vf6wrANVMh4>.

- Chambers, E. G., Foulon, M., Handfield-Jones, H., Hankin, S. M., & Michaels, E. G. (1998). The war for talent. *McKinsey Quarterly*, 44-57.
- Cheese, P., Thomas, R. J., & Craig, E. (2007). *The talent powered organization: Strategies for globalization, talent management and high performance*: Kogan Page Publishers.
- Cheng, Y., Wang, Q., & Liu, N. C. (2014). How world-class universities affect global higher education *How World-Class Universities Affect Global Higher Education* (pp. 1-10): Springer.
- Chiche, M., Duret, E., O'Brien, C., & Bayala, S. (2010). Mid-Term Evaluation of the EFA Fast Track Initiative-Country Case Study: Burkina Faso. *Cambridge Education, Cambridge, UK*.
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling: JSTOR.
- Chin, W. W. (2010). How to write up and report PLS analyses. *Handbook of partial least squares*, 655-690.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research*, 14(2), 189-217.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Earlbaum Associates, 2.
- Creswell, J. W. (2009). *Mapping the field of mixed methods research*: SAGE Publications Sage CA: Los Angeles, CA.
- Creswell, J. W., Hanson, W. E., Clark Plano, V. L., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *The counseling psychologist*, 35(2), 236-264.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. *Handbook of mixed methods in social and behavioral research*, 209, 240.
- Curran, P. J. (2001). Competition in UK higher education: Applying Porter's diamond model to Geography departments. *Studies in Higher Education*, 26(2), 223-251.
- De Vaus, D. (2013). *Surveys in social research*: Routledge.
- Decter, M., Bennett, D., & Leseure, M. (2007). University to business technology transfer—UK and USA comparisons. *Technovation*, 27(3), 145-155.
- Deshpande, R. (1983). "Paradigms lost": on theory and method in research in marketing. *The Journal of Marketing*, 101-110.

- Diamantopoulos, A., & Siguaw, J. A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17(4), 263-282.
- Doeleman, H., ten Have, S., & Ahaus, K. (2012). The moderating role of leadership in the relationship between management control and business excellence. *Total Quality Management & Business Excellence*, 23(5-6), 591-611.
- Donaldson, L. (2001). *The contingency theory of organizations*: Sage.
- Dyson, R. G. (2004). Strategic development and SWOT analysis at the University of Warwick. *European journal of operational research*, 152(3), 631-640.
- Easterby-Smith, M., Thorpe, R. Y., & Lowe, A. A.(1991): *Management Research-An Introduction*: Sage. London.
- Economics, B. (2015). Economic Contribution of the LERU Universities. *agosto. Disponible en: [http://www.leru.org/files/publications/LERU\\_Economic\\_Contribution\\_-\\_Report.pdf](http://www.leru.org/files/publications/LERU_Economic_Contribution_-_Report.pdf)*.
- Economics, B. (2017). Economic Contribution of the Finnish Universities.
- Education, M. o. H. (2007). National higher education action plan 2007–2010: Author Putrajaya, Malaysia.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they? *Strategic management journal*, 21(10-11), 1105-1121.
- Emory, C. W., & Cooper, D. R. (1991). *Business Research Methods*. Homewood IL: Richard D. Irwin: Inc.
- Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*: University of Akron Press.
- Fassott, G., Henseler, J., & Coelho, P. S. (2016). Testing moderating effects in PLS path models with composite variables. *Industrial management & data systems*, 116(9), 1887-1900.
- FERNANDES, V. (2012). (Re) discovering the PLS approach in management science. *M@ n@ gement*, 15(1).
- Fielden, J. (2008). Global trends in university governance. *Education working paper series*, 9, 278200-1099079877269.
- Finstad, K. (2010). Response interpolation and scale sensitivity: Evidence against 5-point scales. *Journal of Usability Studies*, 5(3), 104-110.
- Florida, R. (2017). How Universities Foster Economic Growth—and Democracy. Retrieved from <https://www.citylab.com/equity/2017/11/how-universities-foster-economic-growthand-democracy/545051/>.

- Florida, R., Mellander, C., & King, K. (2015). *The global creativity index 2015*: Martin Prosperity Institute.
- Folkman, J. (2010). Top 9 leadership behaviors that drive employee commitment. *Retrieved on May, 1, 2012.*
- Fornell, C., & Bookstein, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing research*, 440-452.
- Freeman, J. H. (1973). Environment, technology, and the administrative intensity of manufacturing organizations. *American Sociological Review*, 750-763.
- Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information systems*, 4(1), 7.
- Gold, A. H., & Arvind Malhotra, A. H. S. (2001). Knowledge management: An organizational capabilities perspective. *Journal of management information systems*, 18(1), 185-214.
- Grapragasem, S., Krishnan, A., & Mansor, A. N. (2014). Current trends in Malaysian higher education and the effect on education policy and practice: An overview. *International Journal of Higher Education*, 3(1), 85.
- Guba, E. G. (1990). *The paradigm dialog*: Sage publications.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(163-194), 105.
- Guimón, J. (2013). Promoting university-industry collaboration in developing countries. *World Bank*, 3.
- haider, a. (2009). *Yemen Accreditation And Quality Assurance System*. Retrieved From The Organization Of Islamic Conference Member Countries Legend Hotel, Kuala Lumpur:<http://www2.mqa.gov.my/aqaaiw/Country%20Report/Yemen/Yemen%20Accreditation%20and%20QA%20System%20in%20HE.pdf>.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2013). *Multivariate Data Analysis*: Pearson Education Limited.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis 6th ed*. Uppersaddle River: Pearson Prentice Hall.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance.

- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage Publications.
- Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*: SAGE Publications.
- Harry de Boer , L. C., Kurt De Wit , Jorge Gamaliel Arenas Basurto, Tamás Kozma, István Polónyi , José Beltrán Llavador, Jun Oba, Alejandra Montané López, Daniel Gabaldón Estevan, Jorge Correia Jesuino, Kinjal V. Ahir, João Pissarra, Amira El Masri, Maria Elisa Chaleta, Serap Emil, Ulf Fredriksson, Petros Gougoulakis, Wojciech Duczmal, Roopa Desai Trilokekar, Sheila Embleton, Angela Corengia, Dante Salto. (2018). *In Pursuit of World Class Universities A Global Experience* K. M. J. Marcelo Rabossi, Saeed Paivandi (Ed.)
- Hassan, A. (2006). Current practices of Malaysia higher education. *Globalization and Integration in Higher Education*.
- Hazelkorn, E. (2009). Rankings and the battle for world-class excellence. *Higher education management and Policy*, 21(1), 1-22.
- Hazelkorn, E. (2015). *Rankings and the reshaping of higher education: The battle for world-class excellence*: Springer.
- Hénard, F., & Mitterle, A. (2010). *Governance and quality guidelines in higher education: A review of governance arrangements and quality assurance guidelines*: OECD.
- Henard, F., & Mitterle, G. (2009). quality guidelines in Higher Education” IMHE: OECD.
- Henseler, J., & Fassott, G. (2010). Testing moderating effects in PLS path models: An illustration of available procedures *Handbook of partial least squares* (pp. 713-735): Springer.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics*, 1-16.
- Hsiou-Hsia, T. (2007). The features of a world-class university: Lessons from international ranking. *World-Class University And Ranking: Aiming Beyond Status*, 39-54.
- Hussain, T., & Younis, A. (2015). Quality Management Practices And Organizational Performance: Moderating Role Of Leadership. *Science International*, 27(1).
- INQAAHE, L. R. (2005). Guidelines of good practice: INQAAHE Wellington.
- Islam, J., & Hu, H. (2012). A review of literature on contingency theory in managerial accounting. *African Journal of Business Management*, 6(15), 5159-5164.



- Issa, A. T., & Siddiek, A. G. (2012a). Higher education in the Arab world & challenges of labor market. *International Journal of Business and Social Science*, 3(9).
- Issa, A. T., & Siddiek, A. G. (2012b). Higher education in the Arab world & challenges of labor market.
- JAMSON, G. (2014). Critical Factors In Developing a Successful Education HUB: The Malaysian Case. Retrieved from [https://apan.net/meetings/apan40/Sessions/3/UM\\_Education\\_Hub.pdf](https://apan.net/meetings/apan40/Sessions/3/UM_Education_Hub.pdf).
- Jasmon, G. (2016). Effective University Leadership and Governance: The Malaysian Case Retrieved from : [http://jci.edu.my/jci\\_event/page/2/](http://jci.edu.my/jci_event/page/2/).
- John, W. C. (2009). Research design: Qualitative, quantitative, and mixed methods approaches. *Chapter One-Selection Of Research Design, 3rd Ed. SAGE publication*.
- Jones, B. (2010) As Science Evolves, How Can Science Policy? : *Vol. 11. Innovation Policy and the Economy*, : Lerner and Stern.
- Jones, B. F., & Olken, B. A. (2005). Do leaders matter? National leadership and growth since World War II. *The Quarterly Journal of Economics*, 120(3), 835-864.
- Kim, D., Song, Q., Liu, J., Liu, Q., & Grimm, A. (2018). Building world class universities in China: exploring faculty's perceptions, interpretations of and struggles with global forces in higher education. *Compare: A Journal of Comparative and International Education*, 48(1), 92-109.
- Kline, R. B. (2011). *Convergence of structural equation modeling and multilevel modeling*: na.
- Krippendorff, K. (2004). Reliability in content analysis: Some common misconceptions and recommendations. *Human communication research*, 30(3), 411-433.
- Kumar, D. (2015). Correlation Between Strategic Planning and Firm Performance. *Journal of Management & Business studies*, 5(2), 64-75.
- Kumar, R. (2005). *Research Methodology : A step-By-Step guide for beginners*. London. New Delhi.
- Lee, J. (2013). Creating world-class universities: Implications for developing countries. *Prospects*, 43(2), 233-249.
- Lee, M., Sirat, M., & Wan, C. D. (2017). The development of Malaysian universities: Exploring characteristics emerging from interaction between Western academic models and traditional and local cultures. *Higher Education Evaluation and Development*, 11(1), 25-37.

- Lee, M. N. (2004). Global trends, national policies and institutional responses: Restructuring higher education in Malaysia. *Educational Research for Policy and Practice*, 3(1), 31-46.
- Levy, D. C. (1980). University and Government in Mexico: Autonomy in an Authoritarian System.
- Lewis, B. R., Templeton, G. F., & Byrd, T. A. (2005). A methodology for construct development in MIS research. *European Journal of Information Systems*, 14(4), 388-400.
- Lewis, J. R. (1993). Multipoint scales: Mean and median differences and observed significance levels. *International Journal of Human-Computer Interaction*, 5(4), 383-392.
- Li, J. (2012). World-class higher education and the emerging Chinese model of the university. *Prospects*, 42(3), 319-339.
- Li, Y. A., Whalley, J., Zhang, S., & Zhao, X. (2012). The higher educational transformation of China and its global implications *The Globalization of Higher Education* (pp. 135-162): Springer.
- Liu, H., & Jiang, Y. (2001). Technology transfer from higher education institutions to industry in China: nature and implications. *Technovation*, 21(3), 175-188.
- Luke, A., Freebody, P., Shun, L., & Gopinathan, S. (2005). Towards research-based innovation and reform: Singapore schooling in transition. *Asia Pacific Journal of Education*, 25(1), 5-28.
- Mackenzie, N., & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in educational research*, 16(2), 193-205.
- Maha. (2013). The Influence of TQM, Knowledge management and innovation capability on innovation performance of Malaysian manufacturing companies (Unpublished PhD thesis). *Universiti Utara Malaysia, Sintok, Malaysia*.
- Malaysia, H. E. (2015). Enhancing University Board Governance And Effectiveness (UniTP) GREEN BOOK BOOK.
- Marcoulides, G. A., Chin, W. W., & Saunders, C. (2009). A critical look at partial least squares modeling. *Mis Quarterly*, 33(1), 171-175.
- Marlin, C. (2011). World-class research performance through research focus and the strategic use of research resources *Paths to a World-Class University* (pp. 195-203): Springer.
- Marsh, R. M., & Mannari, H. (1981). Technology and size as determinants of the organizational structure of Japanese factories. *Administrative Science Quarterly*, 33-57.

- Maslen, G. (2012). Worldwide student numbers forecast to double by 2025. *University World News*. Retrieved from <http://www.universityworldnews.com/article.php?story=20120216105739999>.
- Mat Dangi, M. R., Latif, A., Ezhawati, N., & Baharum, Z. (2017). Leadership quality and competency towards investor valuation and firm performance. *Journal of Advanced Research in Business and Management Studies*, 7(2), 55-67.
- Miles, M. B., Huberman, A. M., Huberman, M. A., & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook*: sage.
- Miller, C. C., & Cardinal, L. B. (1994). Strategic planning and firm performance: A synthesis of more than two decades of research. *Academy of management journal*, 37(6), 1649-1665.
- Miller, P., & Marchant, T. (2009). Professional doctorate research in Australia: commentary and case studies from business, education and indigenous studies.
- Milton, S., & Barakat, S. (2016). Higher education as the catalyst of recovery in conflict-affected societies. *Globalisation, Societies and Education*, 14(3), 403-421.
- MoE, M. (2015). Malaysia Education Blueprint 2015-2025 (Higher Education). *Kuala Lumpur: Ministry of Education Malaysia*.
- Mohsin, M., & Kamal, M. A. (2012). Managing quality higher education in Bangladesh: Lessons from the Singaporean and Malaysian strategies and reforms. *International Journal of Business and Management*, 7(20), 59.
- Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, 20(8), 1045-1053.
- Morshidi, S., & Abdul Razak, A. (2008). *Policy for higher education in a changing world: Is Malaysia's higher education policy maturing or just fashionable*. Paper presented at the Forum on Higher Education in a Globalising World: Developing and Sustaining an Excellent System.
- Muda, W. (2008). *The Malaysian national higher education action plan: Redefining autonomy and academic freedom under the APEX experiment*. Paper presented at the ASAIHL Conference, University Autonomy: Interpretation and Variation, Universiti Sains Malaysia, Penang.
- Mundial, B. (2002). Constructing knowledge societies: new challenges for tertiary education. *Washington, DC*.
- Muthanna, A. (2015). Quality education improvement: Yemen and the problem of the 'brain drain'. *Policy Futures in Education*, 13(1), 141-148.
- Network, V. (2018). Importance of Strategic Partnerships. Retrieved from <http://www.valuenetwork.biz/about-us/company-news/61-strategic-partnerships>

- Ng, S. F., Muhd, N. M. N., Ab Rahman, K., & Ismail, N. (2011). Influential factors to pursue doctorate degree in Malaysia. *Procedia-Social and Behavioral Sciences*, 15, 2028-2032.
- Ngok, K., & Guo, W. (2008). The quest for world class universities in China: Critical reflections. *Policy Futures in Education*, 6(5), 545-557.
- O'leary, Z. (2004). *The essential guide to doing research*: Sage.
- OECD, Enseñanza, C. p. l. I. y. l. I. e. l., & économiques, O. d. c. e. d. d. (2004). *Quality and recognition in higher education: The cross-border challenge*: McFarland.
- Ouche, O. M., Oima, D. O., & Oginda, M. (2016). Moderating Effect of Strategic Planning Intensity on Strategic Planning and Financial Performance of National Sport Federations in Kenya. *International Journal of Academic Research in Business and Social Sciences*, 6(4), 242-260.
- Oye Ibidapo. (2018, March 3). Leadership and National Development - What Implications for the Nigerian State. Retrieved from <http://wolesoyinkalecture.org/12th-wole-soyinka-lecture/leadership-and-national-development-what-implications-for-the-nigerian-state/>.
- Ozsoy, C. (2008). *The contribution of higher education to economic development*. Paper presented at the 8th Global Conference on Business and Economics.
- Pakistan, G. o. (2002). *Report of the Task Force on improvement of higher education in Pakistan*. Retrieved from Ministry of Education. Islamabad. Pak. P. XIV.
- Parkhe, A. (1993). "Messy" research, methodological predispositions, and theory development in international joint ventures. *Academy of Management review*, 18(2), 227-268.
- Perry, C., Alizadeh, Y., & Riege, A. (1997). *Qualitative methods in entrepreneurship research*. Paper presented at the Proceedings of the annual conference of the small enterprise association Australia and New Zealand.
- Planning, S. C. E. (2015). *Supreme Council Educational Planning. Education Indicators in the Republic of Yemen*. Retrieved from Yemen, Sana'a.
- Porter, M. E. (1990). The competitive advantage of nations. *Competitive Intelligence Review*, 1(1), 14-14.
- R.Dharaskar. (2014). Washington Accord & Multi-Objective Integrated Model for Developing WCU. *BOOK*, 329.
- Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of research in Marketing*, 26(4), 332-344.

- Rohrbeck, R., & Arnold, H. (2009). Making university-industry collaboration work-a case study on the Deutsche Telekom Laboratories contrasted with findings in literature.
- Roscoe, J. T. (1975). *Fundamental research statistics for the behavioral sciences [by] John T. Roscoe*.
- Russ, F. A., & McNeilly, K. M. (1995). Links among satisfaction, commitment, and turnover intentions: The moderating effect of experience, gender, and performance. *Journal of Business Research*, 34(1), 57-65.
- Sadlak, J., & Cai, L. N. (2009). *The World-class University as Part of a New Higher Education Paradigm: From Institutional Qualities to Systematic Excellence*: Citeseer.
- Sadlak, J., & Liu, N. C. (2007). *The world-class university and ranking: Aiming beyond status*: Unesco-Cepes Bucharest.
- Salmi, J. (2009). *The challenge of establishing world-class universities*: World Bank Publications.
- Salmi, J. (2011). The road to academic excellence: Lessons of experience. *The road to academic excellence: The making of world-class research universities*, 323-347.
- Salmi, J. (2013). Daring to Soar: A Strategy for Developing World-Class Universities in Chile Atreverse a volar alto: una estrategia para desarrollar universidades.
- Salmi, J. (2015). *Excellence Strategies and the Creation of World-Class Universities*. Paper presented at the 6th International Conference on World-Class Universities (WCU-6), Center for World-Class Universities, Shanghai, China, 1-4 November, 2015.
- Salmi, J. (2016). Excellence strategies and the creation of world-class universities *Matching Visibility and Performance* (pp. 15-48): Springer.
- Salmi, J., & Liu, N. C. (2011). Paths to a world-class university. *Paths to a world-class university: Lessons from practices and experiences*.
- Salmi, J., & Saroyan, A. (2007). League tables as policy instruments. *Higher education management and Policy*, 19(2), 1-38.
- Santoro, M. D., & Betts, S. C. (2002). Making Industry—University Partnerships Work. *Research-Technology Management*, 45(3), 42-46.
- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105-115.
- Sather, B. A. (2004). *Managerial Control of Faculty by Physical Education Department Chairpersons*. Texas Woman's University.

- Seedee, R. (2012). Moderating role of business strategies on the relationship between best business practices and firm performance. *International Journal of Business and Social Science*, 3(24).
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*: John Wiley & Sons.
- Shahin, B. (2011). *Evaluating the effectiveness of strategic planning within the Middle Eastern public sector*. Victoria University.
- Shank, J. K. (1989). Strategic Cost Management: New. *Journal of management accounting research*.
- Sharma, Y. (2011). GLOBAL: How to create a world-class university. *University World News Global Edition Issue 192*(192).
- Sharma, Y. (2011). How to create a world-class university. *Journal of World University New*, 192, 59-63.
- Sharpe, R. (2014). What is a World Class University? A Literature Review. Retrieved from: <http://www.elementaleadership.co.uk/knowledgeportal/pdf/What%20is%20a%20World%20Class%20University.pdf>.
- Shields, R. (2016). Following the leader? Network models of “world-class” universities on Twitter. *Higher education*, 71(2), 253-268.
- Shin, S. J., & Zhou, J. (2007). When is educational specialization heterogeneity related to creativity in research and development teams? Transformational leadership as a moderator. *Journal of applied Psychology*, 92(6), 1709.
- Sidhu, G. K., & Kaur, S. (2011). Enhancing global competence in higher education: Malaysia’s strategic initiatives *Higher education in the Asia-Pacific* (pp. 219-236): Springer.
- Silan. (2003). *Activate the role of Yemen universities*.
- Sirat, M. (2013). Malaysia’s world-class university ambition: An assessment *Institutionalization of world-class university in global competition* (pp. 205-223): Springer.
- Sirat, M., & Da Wan, C. (2016). Higher education in Malaysia *The Palgrave handbook of Asia Pacific higher education* (pp. 469-482): Springer.
- Smith, W. K., & Tushman, M. L. (2005). Managing strategic contradictions: A top management model for managing innovation streams. *Organization science*, 16(5), 522-536.
- Stebbins, R. A. (2001). *Exploratory research in the social sciences* (Vol. 48): Sage.

- Supreme Council for Education Planning, P. M. (2015). *Educational Indicators of The Republic of Yemen. Stages and Various types*. Book. Prime Minister office - Yemen Sana'a.
- Taiwo, A. S., & Idunnu, F. O. (2007). Impact of strategic planning on organizational performance and survival. *Research Journal of Business Management*, 1(1), 62-71.
- Tallant, J. (2009). Importance of Vision, Mission, and Values in Strategic Direction.
- Taylor, J. S., de Lourdes Machado, M., & Peterson, M. W. (2008). Leadership and strategic management: Keys to institutional priorities and planning. *European Journal of Education*, 43(3), 369-386.
- Thrash, A. (2012). Leadership in higher education. *International journal of humanities and social science*, 2(13), 1-12.
- Tsiligiris, V. (2018). An adapted Porter Diamond Model for the evaluation of transnational education host countries. *International Journal of Educational Management*, 32(2), 210-226.
- ucentralasia (Producer). (2015). UCA Public Lecture: The Challenge of Establishing World-Class Universities in Emerging Countries. Retrieved from <https://www.youtube.com/watch?v=yL63ApJWARU&t=1514s>.
- Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information technology theory and application*, 11(2), 5-40.
- USHER, A. (2016). A short global history of rankings *Global Rankings and the Geopolitics of Higher Education* (pp. 47-77): Routledge.
- Usoh, E., Ratu, D., Manongko, A., Taroreh, J., & Preston, G. (2018). *Strategic Planning towards a World-Class University*. Paper presented at the IOP Conference Series: Materials Science and Engineering.
- Wadongo, B., & Abdel-Kader, M. (2014). Contingency theory, performance management and organisational effectiveness in the third sector: A theoretical framework. *International Journal of Productivity and Performance Management*, 63(6), 680-703.
- Wang, F.-J., Chich-Jen, S., & Mei-Ling, T. (2010). Effect of leadership style on organizational performance as viewed from human resource management strategy. *African Journal of Business Management*, 4(18), 3924-3936.
- Wang, Q., Cheng, Y., & Liu, N. C. (2013). Building world-class universities *Building World-Class Universities* (pp. 1-10): Springer.
- Worldwide, R. (2010). *Malaysia The Fifth Asian Tiger Case Study*. Retrieved from Rubin Worldwide: <http://www.rubinworldwide.com/files/Malaysia.pdf>.

- Wunsch-Vincent, S., Lanvin, B., & Dutta, S. (2015). *The Global Innovation Index 2015: Effective Innovation Policies for Development*.
- WUS. (1988). *The Lima Declaration on Academic Freedom and Autonomy of Institutions of Higher Education*. Geneva, Switzerland: World University Services Retrieved from <https://www.wusgermany.de/sites/wusgermany.de/files/userfiles/WUS-Internationales/wus-lima-englisch.pdf>.
- Xie, G. (2014). Seeking a Road Map to Becoming World Class: Strategic Planning at Peking University. *Comparative & International Higher Education*, 6, 77-84.
- Yang, R., & Welch, A. (2012). A world-class university in China? The case of Tsinghua. *Higher education*, 63(5), 645-666.
- Yemen, H. (2005 ). *Ministry of Higher Education and Scientific Research. National Strategy for the development of Higher Education in Yemen*. Ministry of Higher Education Yemen.
- Yin, R. K. (1994). Discovering the future of the case study. Method in evaluation research. *Evaluation practice*, 15(3), 283-290.
- Yingjie, W. (2001). Building the world-class university in a developing country: universals, uniqueness, and cooperation. *Asia Pacific Education Review*, 2(2), 3-9.
- Yusof, Z. A., & Bhattasali, D. (2008). *Economic growth and development in Malaysia: policy making and leadership*: International Bank for Reconstruction and Development/The World Bank Washington, DC.
- Zikmund, W. (2003). *Business research methods* 7th ed., Thomson/South-Western.
- Zikmund, W. G. (2003). *Business research methods* (7th ed. ed.): Cincinnati, OH : Thomson/South-Western, 2003.