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# Compare Learning Management Systems in Higher Education (A Case Study: 4 University In UK,Italy,Russia,India)

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#### **Abstract**

The increased shift towards the use of LMS platforms has gained even more momentum during the pandemic. The LMS global market showed a 23.8% increase in 2020, which was much more significant than the average year-to-year growth. There is no real mystery behind the success of LMS platforms. The overwhelming benefits of having an LMS have made them a permanent fixture in higher education institutions around the world. Learning Management Systems offer several advantages to their users, whatever their role in the institution might be. The reason to study different countries' higher education systems is not describing and reviewing sequential pattern ideas by our personal taste and finally reject or accept them, but the main value of these studies is understanding which ways are used by other countries to arrange the construction of modern systems and what measures have been taken to satisfactorily resolve educational problems. We try to get differences and similarities by analysis among "United Kingdom, Italy, Russia and India, "regard to effective factors. And we used 4 University including; University of Oxford (UK), University of Bologna (Italy), Lomonosov Moscow State University (Russian Federation), Punjab University as data source.

**Keywords:** University rankings, higher education system, academic features.

#### Introduction

International university rankings have become a familiar feature on the higher education scene. Data of colleges and universities can be useful to many interested parties and for many purposes. University governance and the relationship between the state and higher education institutions are issues that have generated intense debate in recent years, since they are seen as important conditions for the modernization of universities. Such performance differences are thought to be especially important for advancing science, technology, and the industries that depend up on them (Aghion, 2009).

To make progress in this direction, the relevant literature suggested that the framework sought should be characterized by some properties. Eight fields are discussed in our study; institutional research, science and technology development, innovation and enterprise development, knowledge and technology commercialization, university autonomy, reliability and ranking (global ranking), international outlook, teaching.

We compared Iran, India, Italy, Russian Federation and United Kingdom higher education systems with each other, two Asian and three European countries. We used individual Universities of each country. For this one we selected 5 Universities; University of Oxford (UK), University of Bologna (Italy), Moscow State University (Russian Federation), Punjab University (India). Reliability and ranking (global ranking) international outlook, industry income, research, and citation and University autonomy.

### **Literature Review**

#### **Universities Description**

#### **University of Oxford (UK)**

Twenty-six British prime ministers, at least 30 other world leaders, 12 saints and 20 archbishops of Canterbury have been Oxonians. Oxford virtually invented college life in the 13th century. The world's third-oldest surviving university offers approximately 12,000 undergraduates a choice of 38 colleges and six permanent private-residence halls.

### **University of Bologna (Italy)**

Since 2000, Bologna's motto has been "Alma mater studiorum" ("Nurturing mother of studies"), reminding its 96,000 present-day students that this institution, dating from 1088, is the oldest university in the Western world. Historically noted for teaching canon and civil law, its 22 faculties offer 128 "laurea" or "laurea breve" first-level degrees and about as many specialized two-year qualifications.

# Lomonosov Moscow State University (Russian Federation) or Moscow State University

Work on developing 462 acres on the Lenin Hills as a new home for MSU, founded as the Imperial Moscow University in 1755, and began in the 1940s, when it was also renamed after the 18th-century polymath Mikhail Lomonosov. It has more than 1,000 buildings accommodating 40,000 students, 6,000 academic staff and 5,000 researchers.

#### **Punjab University**

Spread over a 550-acre campus in the city of Chandigarh, Punjab University has 75 teaching and research departments and more than 190 affiliated colleges across the region. It is one of India's oldest universities and boasts current Prime Minister Manmohan Singh and Nasa astronaut Kalpana Chawla (who perished in the Space Shuttle Columbia disaster) among its alumni.

### 10 Benefits of Learning Management Systems for Higher Education Institutions

In step with the hyper-connected and constantly evolving world, educational institutions have managed to stay on top of their rapidly changing needs by making Learning Management Systems (LMS) adoption commonplace. LMS offers a streamlined and cohesive eLearning platform for the convenience of students, instructors, and administrators alike.

The increased shift towards the use of LMS platforms has gained even more momentum during the pandemic. The LMS global market showed a 23.8% increase in 2020, which was much more significant than the average year-to-year growth.

There is no real mystery behind the success of LMS platforms. The overwhelming benefits of having an LMS have made them a permanent fixture in higher education institutions around the world.

Learning Management Systems offer several advantages to their users, whatever their role in the institution might be. Let's look at some of the reasons why LMS platforms are here to stay:

#### 1. Convenient and Efficient

One of the best features of Learning Management Systems is that it becomes a centralized platform containing all the course material needed for any particular course. Having a single, well-managed database streamlines the learning experience for all the students. Students can upload assignments and take assessments, all from one platform. It also makes it convenient for the instructors to be able to distribute resources to all students simply by uploading them on the LMS. Cloud-based LMS especially adds to this convenience since the data is accessible from anywhere.

### 2. Allows Greater Flexibility

One of the biggest ways that the traditional classroom experience has changed is through the introduction of blended and hybrid learning. Blended learning allows students to take lectures in-person and supplement their learning with study materials found on the LMS. The Learning Management System content could include readings, notes, recorded lectures, lesson plans, and much more. Hybrid learning, on the other hand, allows even greater flexibility to students by allowing them to take classes in-person or online and supplement that with course material on an LMS. The online classes can be taken right from within the LMS. Based on their preferences, students can attend classes however they like. This flexibility makes it easier for students to maintain attendance and prevents any disruption in the course plan should the campus face closure for any reason.

#### 3. Analytics Offer Unique Insights

Data is the currency which higher education institutions use to grow and improve themselves. LMS reporting enables its users to evaluate and analyze the data from each course and tailor it according to what the reports indicate. From knowing how well students are progressing in the course to time logs and assessment data, instructors can get to know exactly how their courses are being received.

Knowing which courses are popular and what can help improve enrollment in other courses. Reviews and feedback on the course can be easily analyzed by reporting tools to present a comprehensive picture of what material students found engaging. Time logs can help determine what aspects of the course are perceived to be difficult or most interesting. Other data like average view time and the number of correct attempts can also be used to improve the courses in the future.

### 4. Personalized Learning Pathways

An important consequence of the increased interest in eLearning platforms has been the importance given to personalized learning. Learning is not homogenous for everyone and different students learn in different ways. Personalized learning allows students to go through courses in a way that suits them.

The pace of learning can be adjusted to match the student's aptitude. Similarly, each student can set their own personalized goals within a course, learn collaboratively or individually, and take voluntary assessments as per their needs. There are some courses that allow for more personalization than others, but having the option to tailor their learning experience helps build confidence in students.

#### 5. Easy Assessment and Grading Tools

A key advantage of having Learning Management Systems in education has been the ease with which instructors can assess their students' performance. Timed/Untimed tests and quizzes can be administered from the LMS and grading them can be automated and made even easier. Students can choose to take these assessments from anywhere.

Additionally, the cumbersome collection and sorting of papers is avoided by online submission, which can then be reviewed by the instructor anytime and anywhere. Personalized assessments can be made for students depending on their progress in the course. Not just that, homework, projects, and presentations can all be managed directly from the LMS.

#### 6. Learning On the Go

Having your courses on a Learning Management System means learning from anywhere, even on the go. Some of the best Learning Management Systems come with mobile applications to make content even more accessible. Students can take their courses even if they do not have access to a desktop and can attend lectures, submit assignments, and check their grades, all while traveling.

Having the convenience to check course updates from your phone and tablet is a feature that is popular with students and instructors alike.

#### 7. Scalable

Having a scalable LMS is essential when it comes to higher education institutions. In unpredictable times such as these, it is difficult to gauge the enrollment numbers and class sizes. With the opening up of campuses worldwide, there is a sudden influx of students and courses.

Having a Learning Management System that is capable of growing with the institution is crucial in order to keep the learning process uninterrupted. A capable LMS needs to be able to handle a large amount of data, as well as a large number of users without breaking down. Modern servers and cloud environments enable institutions to monitor and adjust capacity according to LMS usage: ensuring efficiency as well as reliability.

#### 8. Update Course Content Without Hassle

Back in the old days, once a course plan was drawn and resources shared with students, there was little that could be changed in the course content without a major overhaul of all study materials. Today, that process is so much simpler thanks to Learning Management Systems. Instructors can update course plans as they go along, making the course flow smoother. Depending on how well students receive the course, they can also adjust the pace of the course. Lecture presentations can be edited at any time and study material can be added or removed as per the need. Whatever the changes may be, having an LMS allows students to keep up to date with the latest.

#### 9. Encourages Social Learning and Communication

Though it might seem that by encouraging online learning, an LMS isolates students and keeps them from socializing, in reality, that is far from the truth. A well-equipped Learning Management System encourages interaction and social learning where students can learn from each other. Several group tasks can be

done collaboratively on an LMS. Students can meet for group study sessions using video conferencing, share the screens of their individual devices and collaborate on LMS offline discussion forums.

Many assignments require collaborative submissions so tools present on an LMS could be used to collaboratively edit documents and presentations. In fact, the flow of ideas is much quicker on an online platform than it would be, had students had to schedule physical meetings. Another major advantage is that students can reach faculty members through the LMS, which removes an intimidating barrier of meeting them personally, not to mention waiting around to meet them when their schedule allows.

### 10. Saves Time and Money

Perhaps one of the most underrated benefits of using a Learning Management System is that it saves its users a lot of time and money. With so many fancy features to pay attention to, it is easy to forget that at its simplest, an LMS makes it possible to share a vast variety of study materials and resources with students for free while also keeping them boundaryless. These resources would otherwise take up a significant amount of an already tight student budget.

Apart from that, hybrid learning allows students to save on travel costs and commute time by taking classes from their homes. An LMS also allows institutions to cut down costs by reducing the number of physical classes on campus, especially with a smaller number of students, in order to use their campus resources effectively.

Learning Management Systems have a lot to offer. From facilitating students with their course selection and progress to making it easier for instructors to deliver lectures and grade assessments, LMS is the most significant tool to have changed the eLearning landscape permanently. With further incorporation of technology and learning, the future LMS versions could hope to bring even

more benefits to its users. For now, the future of Learning Management Systems looks bright and the possibilities, endless.

### Why do you need a learning management system?

Rarely does a job candidate come to your company fully ready to take on all the challenges of their new position. Whether it's learning to adapt skills to a new industry or understanding the company's custom processes, every new team member will need to invest some time in training. To ensure each new hire and current employee gets up to speed, companies must inventory skills, identify what's missing, and empower their workforce to bridge that knowledge gap. This is a complex task. But investing in tools and systems that shape the skills employees need will pay off in the long run. From onboarding and training to ongoing education and skill development, learning management software helps businesses facilitate the consistent transfer of critical knowledge and skills to workers. However, since nearly every HR software vendor offers learning management software, discerning between options is tricky and time consuming. To simplify the buying process, this guide will examine the learning management software market, provide a learning management software comparison chart, and feature LMS case studies for organizations of any size. Learning management software systems deliver and manage educational and instructional content, as well as identify and assess individual and organizational learning or training goals. The system then tracks employee progress towards meeting those goals, and collects and presents data for analyzing the entire process. Additionally, the best learning management software integrates with other critical platforms, such as HR, accounting, or even ERP software, which enables management to measure impact, effectiveness, and overall cost of training initiatives.

Talent development and skills management is the most straightforward motivation to adopt a training system. However, if your business must track employee training to uphold industry, government, or company standards, then an LMS can streamline this process. An LMS can help:

- Centralize and automate learning administration
- Consolidate training initiatives through employee self-guided services
- Customize learning or training content and enable knowledge reuse
- Document and report learning activities

You can customize an LMS to ensure that training covers topics that enable the growth and success of each employee and the business. To determine which system best fits your company, you must identify the programs you'll offer. Common topics include:

- Certifications and compliance
- Workplace safety, diversity, and inclusion
- Management, supervisor, and leadership development
- Communications, computer, or sales skills

Content management is the basis of any learning management system. These tools give you an interface to upload, edit, create, and delete the curriculum that your trainees will follow. Because this is where you will spend the majority of your time, you'll want to make sure that the content creation tools are easy to use and make sense for your training needs.

Depending on the types of courses you'll offer, consider these tools within the content and curriculum management features:

- SCORM-ready
- Video upload and editing
- Document storage
- Ability to make microlearning lessons

Gamification is mainstream, and while many companies purchase standalone gamification software, you can boost employee and learner engagement through gamified elements like leaderboards, badges, and rewards within nearly every LMS.

Gamified elements in top learning management systems have been tied to boosted engagement, higher return rates, and more consistent learning outcomes. To include these tools in your learning curriculum, look for software vendors that provide engaging interfaces, alerts, notifications, and competitive elements to activate friendly competition alongside the learning objectives.

How do you know that employees retain the lessons you worked so hard to create? Quizzes and assessments check the level of material retention your employees reach. And today's LMS software can take the feedback generated through learning assessments and use it to personalize next steps. The tool might guide the learner to other courses to fill remaining skills gaps, or it could pass feedback to the training coordinator to improve course material.

Companies in highly-regulated industries often need tools to help track employee certifications and facilitate training for these certifications. Learning management software provides the perfect platform to store employee certification data and set reminders for update alerts. These tools can even provide reports to executives, insurers, and government regulators on the certification status of each of the employees.

In 2018, 52 percent of web traffic happened on mobile devices, which is up 222 percent from 2013. The pace at which users have switched from desktop to mobile isn't likely to slow down much, and companies who want to provide their employees with useful and timely learning opportunities must make their training content mobile accessible.

#### Methodology

We used Times Higher Education (THE) and Shanghai Ranking as the data source. There is no claims for the correctness of the Shanghai rankings but it is widely known and is based on criteria that are themselves reasonable measures of output and correlated with other reasonable measures of output (Aghion, 2009). After transforming data into a table, we analyzed them and created their graphs.

### **Finding**

### Reliability and ranking (global ranking)

After analyzing data and drawing its diagram. Smallest bar shows the best position, so University of Oxford has the best place among these Universities in the world. After that Punjab University and Moscow State University has better place and Sharif University of Technology is the next one in Times Higher Education ranking. University of Bologna is the last one. The middle rank of Universities is used for University of Bologna, Moscow State University, Sharif University of Technology, and Punjab University.

Table 1: Universities Rank; World Rank, International outlook, Industry Income, Research, and Citation

	Region	Website	World Rank	International outlook	Industry income	Research	Citations
University of Oxford	Europe Oxford, United Kingdom	www.ox.ac.uk	2	90.2	90.3	98.5	95.4
University of Bologna	Europe Bologna, Italy	www.unibo.it	276- 300	40.7	33.5	18.6	64.2
Lomonosov Moscow State University	Europe Moscow, Russian Federation	www.msu.ru	226- 250	55.7	72.2	36.6	27.0
Punjab University	Asia Chandigarh, India	www.puchd.ac.in	226- 250	29.3	28.4	14.0	84.7

Source: The Times Higher Education (THE) World University Rankings 2013-2014

#### **Citations: Research influence**

Citation looks at the role of universities in spreading new knowledge and ideas. The citations show us how much each university is contributing to the sum of human knowledge: they tell us whose research has stood out, has been picked up and built on by other scholars and, most importantly, has been shared around the global scholarly community to push further the boundaries of our collective understanding, irrespective of discipline. The data are fully normalized to reflect variations in citation volume between different subject areas (The World University Rankings).

This category looks at diversity on campus and to what degree academics collaborate with international colleagues on research projects - both signs of how global an institution is in its outlook. The ability of a university to attract undergraduates and postgraduates from all over the planet is a key to its success on the world stage: this factor is measured by the ratio of international to domestic students. The top universities also compete for the best faculty from around the globe. So in this category, it is adopted a weighting for the ratio of international to domestic staff. In the third international indicator, it is calculated the proportion of a university's total research journal publications that have at least one international co-author and reward higher volumes (The World University Rankings).

A university's ability to help industry with innovations, inventions and consultancy has become a core mission of the contemporary global academy. This category seeks to capture such "knowledge transfer" by looking at how much research income an institution earns from industry, scaled against the number of academic staff it employs. "Industry income: innovation" suggests the extent to which businesses are willing to pay for research and a university's ability to attract funding in the competitive commercial marketplace - useful indicators of institutional quality.

#### **Discussion & Conclusion**

The reason to study different countries' higher education systems is not describing and reviewing according to our personal taste and reject or accept them, but the main value is understanding which ways are used by other countries to arrange the construction of modern systems and what measures have been taken to satisfactorily resolve educational problems. Learning Management System (LMS) is one of the popular approaches in teaching and learning process. Learning and communicating in electronic way provides solutions for higher education institutions. Despite of that situation, understanding the effectiveness and efficiencies of the systems towards students' satisfaction are required. The effectiveness is concerned since the study is focusing on the effectiveness and the efficiencies of the system.

#### **References:**

- 1. Estermann, T., Nokkala, T., and Steinel, M., (2011) "European University Association 2009. University Autonomy in Europe I: Exploratory Study", European University Association
- Salloum S.A., Qasim Mohammad Alhamad A., Al-Emran M., Abdel Monem A., Shaalan K. Exploring students' acceptance of e-learning through the development of a comprehensive technology acceptance model. IEEE Access. 2019;7:128445–128462. doi: 10.1109/ACCESS.2019.2939467.
- 3. Gunasinghe A., Hamid J.A., Khatibi A., Azam S.M.F. The adequacy of UTAUT-3 in interpreting academician's adoption to e-Learning in higher education environments. Interact. Technol. Smart Educ. 2019;17:86–106. doi: 10.1108/ITSE-05-2019-0020.

- 4. Fagan M.H. Factors Influencing Student Acceptance of Mobile Learning in Higher Education. Comput. Sch. 2019;36:105–121. doi: 10.1080/07380569.2019.1603051.
- 5. Ashtari S., Eydgahi A. Student perceptions of cloud applications effectiveness in higher education. J. Comput. Sci. 2017;23:173–180. doi: 10.1016/j.jocs.2016.12.007.
- 6. Farahat T. Applying the Technology Acceptance Model to Online Learning in the Egyptian Universities. Procedia Soc. Behav. Sci. 2012;64:95–104. doi: 10.1016/j.sbspro.2012.11.012.
- 7. Otter R.R., Seipel S., Graeff T., Alexander B., Boraiko C., Gray J., Petersen K., Sadler K. Comparing student and faculty perceptions of online and traditional courses. Internet High. Educ. 2013;19:27–35. doi: 10.1016/j.iheduc.2013.08.001.
- 8. Gong M., Xu Y., Yu Y. An Enhanced Technology Acceptance Model for Web-Based Learning. J. Inf. Syst. Educ. 2004;15:365–374.
- 9. Allen I.E., Seaman J. Online Nation: Five Years of Growth in Online Learning. Sloan Consortium; Newburyport, MA, USA: 2007.
- 10.Ennis L.S., Gambrell E.A. A comparison of undergraduate faculty and millennial students regarding the utilization of weblog and podcast technology in a teacher education department. Turkish Online J. Distance Educ. 2010;11:114–122. doi: 10.17718/tojde.88575.
- 11.Piotrowski C. Pedagogical Applications of Social Media in Business Education. J. Educ. Technol. Syst. 2015;43:257–265. doi: 10.1177/0047239515570575.
- 12.Smale M.A., Regalado M., Amaral J. Online Learning with in-Person Technology: Student & Faculty Experiences in Hybrid-Online Courses at Cuny. CUNY Academic Works; New York, NY, USA: 2018.

- 13.Henseler J., Ringle C.M., Sarstedt M. Testing measurement invariance of composites using partial least squares. Int. Mark. Rev. 2016;33:405–431. doi: 10.1108/IMR-09-2014-0304.
- 14. Schlägel C., Sarstedt M. Assessing the measurement invariance of the four-dimensional cultural intelligence scale across countries: A composite model approach. Eur. Manag. J. 2016;34:633–649. doi: 10.1016/j.emj. 2016.06.002.
- 15.Henseler J., Ringle C.M., Sarstedt M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. J. Acad. Mark. Sci. 2015;43:115–135. doi: 10.1007/s11747-014-0403-8.
- 16.Kock N. Common Method Bias in PLS-SEM: A full collinearity assessment approach. Int. J. E-Collab. 2015;11:1–10. doi: 10.4018/ijec.2015100101.
- 17.Joseph F., Hair J., Hult G.T.M., Ringle C., Sarstedt M. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Sage Publications Sage; London, UK: 2016.
- 18.Falk R.F., Miller N.B. A Primer for Soft Modeling. University of Akron Press; Akron, OH, USA: 1992.
- 19.Hu L., Bentler P.M. Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. Psychol. Methods. 1998;3:424–453. doi: 10.1037/1082-989X.3.4.424.
- 20.Kim E.J., Kim J.J., Han S.H. Understanding student acceptance of online learning systems in higher education: Application of social psychology theories with consideration of user innovativeness. Sustainability. 2021;13:896. doi: 10.3390/su13020896.
- 21. Fathema N., Shannon D., Ross M. Expanding the Technology Acceptance Model (TAM) to Examine Faculty Use of Learning Management Systems

- (LMSs) in Higher Education Institutions. MERLOT J. Online Learn. Teach. 2015;11:210–232.
- 22.Mokhtar S.A., Katan H., Hidayat-ur-Rehman I. Instructors' behavioural intention to use learning management system: An integrated TAM perspective. TEM J. 2018;7:513.
- 23.Davis F.D. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Q. 1989;13:319–340. doi: 10.2307/249008.
- 24.Bagozzi R.P. The legacy of the technology acceptance model and a proposal for a paradigm shift. J. Assoc. Inf. Syst. 2007;8:244–254. doi: 10.17705/1jais.00122.
- 25.Eraslan Yalcin M., Kutlu B. Examination of students' acceptance of and intention to use learning management systems using extended TAM. Br. J. Educ. Technol. 2019;50:2414–2432.
- 26. Viner R.M., Russell S.J., Croker H., Packer J., Ward J., Stansfield C., Mytton O., Bonell C., Booy R. School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. Lancet Child Adolesc. Health. 2020;4:397–404. doi: 10.1016/S2352-4642(20)30095-X.
- 27.News Y. After Six Months, Pandemic Accelerates Arrival of Contactless Future in S. Korea. [(accessed on 15 May 2021)]; Available online: https://en.yna.co.kr/view/AEN20200716002500315
- 28.Bandura A. The Explanatory and Predictive Scope of Self-Efficacy Theory. J. Soc. Clin. Psychol. 1986;4:359–373. doi: 10.1521/jscp.1986.4.3.359.
- 29.Igbaria M., Parasuraman S. A Path Analytic Study of Individual Characteristics, Computer Anxiety and Attitudes toward Microcomputers. J. Manag. 1989;15:373–388. doi: 10.1177/014920638901500302.

- 30.Bhattarai S., Maharjan S. Determining the Factors Affecting on Digital Learning Adoption among the Students in Kathmandu Valley: An Application of Technology Acceptance Model (TAM) Int. J. Eng. Manag. Res. 2020;10:131–141. doi: 10.31033/ijemr.10.3.20.
- 31.Baki R., Birgoren B., Aktepe A. A meta analysis of factors affecting perceived usefulness and perceived ease of use in the adoption of E-Learning systems. Turkish Online J. Distance Educ. 2018;19:4–42. doi: 10.17718/tojde.471649.
- 32.Al-Rahmi W.M., Yahaya N., Aldraiweesh A.A., Alamri M.M., Aljarboa N.A., Alturki U., Aljeraiwi A.A. Integrating Technology Acceptance Model with Innovation Diffusion Theory: An Empirical Investigation on Students' Intention to Use E-Learning Systems. IEEE Access. 2019;7:26797–26809. doi: 10.1109/ACCESS.2019.2899368.
- 33.Motaghian H., Hassanzadeh A., Moghadam D.K. Factors affecting university instructors' adoption of web-based learning systems: Case study of Iran. Comput. Educ. 2013;61:158–167. doi: 10.1016/j.compedu.2012.09.016.