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Academic excellence: key factors and review of world-class institutions

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Abstract

Academic excellence means establishing healthy teaching and learning environment and maintaining it on sustained basis for the betterment of students and fundamental contributions to the society. In today's competitive and continuously changing world, it is highly challenging to excel in academic excellence and fulfill the needs of students. This research paper reviews literature on the successful universities across the globe and based on key factors responsible for academic excellence. This paper examines the various factors that contribute to an exceptional academic outcomes and quality of teaching learning environment at world's top ten universities. Quality of faculty, research output, achievements of students, innovations, teaching learning environment, international recognition. Through this review comparative analysis of key factors responsible for success and sustenance of top universities in academic excellence have been highlighted. The insights of this study are helpful to come up with the knowledge about key factors practiced by world class educational institutions for an excellence in an academic outcome.

Keywords: *Academic excellence, teaching, learning environment, competitive, challenging, factors responsible, educational institutions.*

Introduction

Achieving high standards of teaching-learning, bringing out the best student performances and pursuing for impactful research is the key goal of an academic excellence. Academic excellence involves providing an environment for developing critical thinking, innovative skills, intellectual growth, and high academic standards. An academically excellent educational institution strives to achieve and establish an effective teaching-learning methodologies, faculty expertise, research and innovation, students' success, and reputation of the institute. To achieve an excellence, any organization needs commitment and focus on core values.

Employee empowerment and continuous improvement are the pioneers of an excellence (Peters and Waterman, 2015). The quest for innovations and inventions has been rising from time to time, and as the time passes, it becomes highly demanding for an educational institution to upgrade itself to meet these everchanging challenges (OECD, 2016). To match between the changing requirements of society and available resources and play a catalytic role in fulfilling the needs and requirements of society is the prime focus of an educational institution. The world-class universities are striving their best to provide and excellent faculties, uplift the levels of students, improve research culture, increased number of innovations and change in teaching paradigm.

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The understanding and knowledge of important factors in this process is very helpful for decision makers, administrators, parents, and students' community.

An objective of this research is therefore to collect the information about world class universities and institutions. Do the comparative analysis of this gathered information and come up with the key findings as regards to the factors of a success such as innovations, student achievement, quality of faculty, quality of research, worldwide recognition. Finally, to highlight the key factors that contributed for these universities to remain the top choice for students for an academic excellence.

To achieve the required objectives, an extensive review about university reports, rankings, and available academic literature was carried out. This set of predetermined factors and factors gathered through literature review are used for evaluation of selected universities.

Factors Responsible for an Academic Excellence

Ouda, H., Ahmed, K. (2015) mentioned about world class institutions are also globally competitive universities or elite or flagship universities or world-class. World-class universities not only improve quality of teaching and learning but also develop capacities for competing with world universities and coping with advanced future challenges.

M. K. Daoud, D et al. (2023), mentioned about various ranking systems of universities across the globe. Few of them are Washington ranking, Maclean's ranking, Melbourne institute's ranking, Guardian university guide, Humboldt ranking, times higher education ranking etc. The author also mentioned various factors that are considered in the ranking of world universities. Some of the factors mentioned in this study are:

- Research quality
- Teaching quality
- International outlook
- Graduate employability

Arum and Roksa (2011) mentioned about an environment of limited learning outcomes and limited progress of college students. Actual critical thinking skills and actual learning may not be attained by just focusing on grades and attaining a degree. To enhance actual learning and develop critical thinking skills, educational institute shall think of high impact educational practices such as research, internship, collaborative projects, and experimental learning. These practices can mold into desired outcomes through role of faculty and teaching quality.

Pascarella and Terenzini (2005) discussed the positive impact of student's engagement and importance of their active involvement in curricular and extracurricular activities. Providing all resources and support creates a conducive teaching learning environment. Creating inclusive and diverse learning environment valuing and supporting students from different background enhances learning outcomes.

Based on above study and general literature review, in this study five factors important for academic excellence have been considered. They are as follows:

- Quality of research
- Quality and expertise of faculty
- Achievements and success of students
- Quality of innovations and contributions in entrepreneurship
- Global recognitions and collaborations

These factors are discussed here one by one as given below.

Quality of research

University of oxford, Stanford university, and Harvard university have renowned impact on world's academic institutions as far as quality of research is concerned (Altbach and Salmi 2011). The high-quality publications and perseverance in updating knowledge is key feature of these universities.

For instance, Stanford university well known for its research contribution in the fields of engineering, technology, and computer science with focus on interdisciplinary area. Whereas Harvard university has numerous high-quality publications in top notch journals and diverse fields like medicine, science, and law. While University of oxford has historic research contribution in diversified fields such as humanities, sciences, social sciences, and art. The more such universities have been revied for their contribution and impact in quality research.

Quality and expertise of faculty

Salmi (2009) mentioned about features of world-class universities should be to attract and retain the qualified professionals. University of oxford, Stanford university, and Harvard university have been known for exceptional quality of faculties and their expertise in research and teaching. These universities look for recruiting distinguished professionals with high quality research in influencing journals. These faculty members bring out innovative teaching methodologies, diversified perspective, and improved commitment to teaching and learning environment that stimulates student learnings.

Achievements and success of students

Study engagement is conceptualized as a positive, succeeding state of mind embracing vigor, devotion, and assimilation in studying (Wang, C et al, 2023). Study engagement concept can be observed in student's mentorship programs and innovative methodologies used by faculty members in university of oxford, Stanford university, and Harvard university. It's a popular culture in these universities to nurture exceptional talent and produce high quality students in diversified fields.

The selection procedure of students in these universities is highly competitive and ensures that a talent pool of students is admitted. The continuous support for teaching and learning, continual mentorship programs, providing exceptional research opportunities, encouraging extracurricular activities becomes instrumental in students' growth and successes. The professionals from these universities sparkles in fields of academics, industry, inventions, public services, and entrepreneurship, thus further adding to the reputation and glory of these universities.

Quality of innovations and contributions in entrepreneurships

University of oxford, Stanford university, and Harvard university give a special emphasis on promoting innovations and encouraging students to choose entrepreneurships as career options. These universities promote interdisciplinary research collaborations and provides resources and supports to their students and faculties to translate their research into real life applications.

These universities nurture the entrepreneurial ecosystem through innovation centers, incubation centers and accelerators to facilitate breakthrough ideas and technologies. These universities have strong tie up with industry leaders and investor networks, which helps to succeed in commercializing innovations and research ideas for spearheading economic growth and thus helping the society (Fricke, 2022).

Global recognitions and collaborations

University of oxford, Stanford university, and Harvard university have established themselves as global leaders such that students, faculty, and researchers from across the world strive to join them for better opportunities (Eremina, Smolin & Martyshina, 2022).

Over the period, these universities are leaders because of their reputation in academic excellence, accommodating people from multicultural and diverse environment. They are leaders in fostering collaborations and partnerships with renown institutions of the world and thus promoting cross cultural understanding and knowledge exchange.

Comparative analysis of world's leading universities

Based on outlined five factors of academic excellence as mentioned above, detailed, and summary of academic practices at worlds' top ten leading institutions in academic excellence has been given below. Following references are used to compile and compare the data about world class universities.

i. <https://www.timeshighereducation.com/> <https://www.timeshighereducation.com>

ii. <https://www.topuniversities.com>

iii. <https://www.cambridgeinternational.org/Images/577608-top-20-universities-in-the-world-factsheet.pdf> accessed on 07.06.2023

Oxford University

Quality of research

- Oxford university is renowned for its vast research output and universal impact across various disciplines like science, social science, medicine, and humanities.
- It is known for high quality publications in reputed journals and is involved in groundbreaking studies.
- Oxford's research has remarkable impact in the fields of politics, economics, law, literature, natural sciences, and medicine.

Quality and expertise of faculty

- Oxford university attracts and retains expert and professional faculties in their respective fields. Such experts possess exceptional academic standings and research publications.
- Oxford's faculty members contribute in research and scholarship, publishing influential papers, books, and articles.
- They serve in editorial boards of reputed journals, are members and heads of many societies, and holds prestigious awards and recognitions.

Achievements and success of student

- Students at oxford university are exceptional achievers and maintains consistent academic excellence in their respective fields.
- Students at oxford university have excellent track record of securing prestigious positions in industry, academics, politics and art.
- The oxford university graduates are highly in demand in industries due to their academic training, critical thinking, and higher intellectual abilities.

Quality of innovations and contributions in entrepreneurships

- The Oxford university undertakes various initiative and programs to encourage and promote innovations and contributions in entrepreneurships.
- Oxford university innovation and Oxford foundry initiatives help to nurture and support students' start-ups.
- Oxford university continuously promotes interdisciplinary collaboration and knowledge transfer, maintaining healthy environment for innovations and entrepreneurial dimensions.

Global recognitions and collaborations

- Oxford university is the leading institution attracting students and faculty members across the globe.
- Oxford university is in the forefront of international research and innovation collaborations. It promotes academic exchange worldwide.
- International collaborations and its reputations help to create diverse platform of academic community heling for conducive teaching and learning environment.

Stanford University

Quality of research:

- Stanford university is influential for research contributions in the fields of engineering, technology, computer science, biomedical sciences, and social sciences.
- It is known for groundbreaking research and transferring innovations into practical use and societal impacts.
- Stanford university has a significant role in applied research in the fields of artificial intelligence, entrepreneurship, renewable energy, and biotechnology.

Quality and expertise of faculty

- Stanford university attracts and retains faculty member's expert in their respective fields.
- Its faculty members with strong academic and industry background, have influential track records in research and scholarships.
- Stanford university is a major contributor in an influential research and publications.

Achievements and success of students

- Stanford university students have an excellent academic and subsequent pursuit inprestigious careers.
- They undergo rigorous training programs and research opportunities and contribute to advancements in knowledge.
- Stanford university graduates are in high demand in industries and academia and have been contributing at prestigious positions in industry, academics, entrepreneurship, arts and public services.

Quality of innovations and contributions in entrepreneurships

- Stanford university incubates a strong culture of innovations and entrepreneurship through it ongoing support programs to its students and faculty members.
- Stanford university focuses on entrepreneurship promotion programs like Stanford Technology Ventures Program (STVP) and the Stanford Start X to propagate and nurture entrepreneurship ideas.

- Interdisciplinary collaborations and knowledge sharing is actively encouraged in Stanford university. This brings out innovative solutions to the real-world problems.

Global recognitions and collaborations

- Stanford university has been recognized as one of the premier institutes in the world.
- Its widespread collaborations with research institutes, universities and industries have been catalytic in many international research breakthroughs and academic exchanges.
- Stanford university has globally connected academic environment because of students and faculty inflows from all over the world.

Harvard University

Quality of research:

- Harvard university is known for significant research contribution in the fields of medicine, social science, law, humanities, sciences, and many others.
- Its contribution in knowledge advancements have innovation has been phenomenal in academic's administration and policy making.
- Many fields like public health, economics, law, literature, biomedical etc. have been greatly benefitted and influenced by Harvard's research outcomes.

Quality and expertise of faculty

- Leading scholars, intellectuals and researchers have been attracted and retained by Harvard university on consistent basis in respective fields.
- Harvard university faculty members are renowned academicians, and possesses influential research contributions, and publications in various fields.
- Harvard university faculty members are regarded as though leaders and have received many prestigious awards for their contributions in academics and research.

Achievements and success of students

- Harvard university students have been extraordinarily successful during academics and after graduating.
- Harvard university students are known for Intellectual curiosity, commitment, and positive impact on society.
- Harvard university have been contributing on prestigious positions in various fields such as academics, government, industry, and arts.

Quality of innovations and contributions in entrepreneurship

- Harvard university nurture the culture of innovations and entrepreneurship to promote its faculty and students for innovative ideas and practically transferring them into entrepreneurship.
- Harvard Innovation Lab (i-lab) and the Harvard Business School's entrepreneurship programs are well known for its resources and support to budding entrepreneurs.
- Harvard university promotes interdisciplinary collaboration thereby useful practical ideas are transferred into real life applications.

Global recognitions and collaborations

- Harvard university has international recognition as one of the best academic institutions.

- Harvard university is well established name in international research collaborations and academic exchanges.
- Harvard university has established vibrant academic environment through the pool of students and faculty from all over the world (Polachini et al., 2022).

The academic practices established and maintained by other seven world class institutions have been presented in the tabular form as given below. Key features and analysis of leading academic institutions of the world

Name of the University	Quality of research	Quality and expertise of faculty	Achievements and success of students	Quality of innovations and contributions in entrepreneurship	Global recognitions and collaborations
Massachusetts Institute of Technology	Pioneering in research and innovation in the fields of engineering, technology, and science	Top experts in academics and research in respective fields	High level academic and professional achievers	Strong culture of innovation and entrepreneurship to promote and transfer innovative ideas to social benefits	Enjoys strong recognition as leading international institute
	High quality research, key discoveries guide industries and academics to solve global challenges	Vast academic and industry experts, renowned Scholars, practitioners, and researchers	Rigorous education, hand on practical projects, contribute to innovative real-life solutions	Nurtures entrepreneurship through MIT Innovation Initiative, MIT Media Lab, and the Martin Trust Center for MIT	International research collaborations, students exchange, and knowledge transfer
California Institute of Technology	Research contribution and advancements in artificial intelligence, robotics, nanotechnology, renewable energy, and nanotechnology	Leading positions in academic societies and professional bodies	Industry leaders, academic experts, renown entrepreneurs and contributors to the society	Interdisciplinary collaboration to develop breakthrough technologies and innovations	Global teaching and learning environment, diverse community of students and faculty
	Significant research impact in scientific and technological fields	World-class experts with high accomplishments and renowned experts	Exceptional achievements during graduation. Highly wanted after graduation	Innovation and entrepreneurship culture to translate research into practical applications	Renown as worldclass institute in engineering, technology, and science
University of Cambridge	Groundbreaking research in physics, chemistry, biology, astronomy, computer science, and engineering	Influential research, publications, achievements, and leadership positions in respective fields	Hands on research projects, technological and scientific breakthrough	Caltech Entrepreneurs Forum, tech transfer offices, and startup incubators focusses on innovations and entrepreneurship	Global research collaborations, exchange programmes, and knowledge sharing
	Transforming research in nanotechnology, astrophysics, quantum mechanics, and environmental science	Pioneering research, scientific and technological advancements, and collaboration with widespread organizations	Industry leaders, leading positions in academics, and industries	Interdisciplinary collaboration, intellectual curiosity, promotes innovation culture	Stimulating teaching and learning environment through students and faculty from all over the world
University of Cambridge	Renowned for exceptional research in various fields	Attracts leading experts in respective fields	Excellent academic achievement and success. Professional recognitions	Encourages innovation and entrepreneurship culture to translate research into real world applications	International recognition as leading academic institution

Name of the University	Quality of research	Quality and expertise of faculty	Achievements and success of students	Quality of innovations and contributions in entrepreneurship	Global recognitions and collaborations
	Founding research contribution in engineering, medicine, science, natural science, and humanities	Outstanding researchers and strong track records of impactful research	Independent projects, critical thinking, and problem-solving skills	Well established Cambridge Enterprise and the Judge Business School's entrepreneurship programs	International research collaborations and academic exchange
	Breakthrough discoveries, advancement in knowledge, major contribution to society	Groundbreaking research, publications and books, international recognition	Highly sought by employers, research organizations, and academic institutions. Leadership positions	Interdisciplinary collaborations, knowledge transfer, commercialization of research findings	Internationally reputed for diverse community and diverse academic environment
Princeton University	Outstanding research findings and impact in research field	World-class expert faculty members	Excellent achievements and academic and professional success	Prime focus on innovation and entrepreneurship	Recognition as leading institution in the world
	Radical research in physics, mathematics, public policy, humanities, and social sciences	Exceptional academic background. Significant research contributions	Independent research projects and interdisciplinary interests	Keller Center for Innovation and the Princeton Entrepreneurship Council are foundations of entrepreneurship	International research and collaborations all over the world
	Fundamental discoveries impacted societal change and policy issues	Active in impactful research, quality publications, awards, and recognitions	Highly sought by industry, academia, business, and public services	Interdisciplinary collaboration, innovative ideas to develop solutions	Rich and universally connected through pool of students and faculty all over the globe
University of Chicago	Impactful research and contribution in various fields	Attracts distinguished faculty with expertise in respective fields	Exceptional achievements and success during and after graduation	Nurtures culture of innovation and entrepreneurship to bring out and implement innovative ideas	Strong international reputation as elite academic institution
	Key research in humanities, physical sciences, economics, law, and biomedical sciences	Renowned scholars, researchers and academicians' experts in teaching and research	Focused education and training, Critical thinking, interdisciplinary research	Dedicated Polsky Center to encourage and support entrepreneurship initiatives	Fosters international collaborations and academic exchange
	Impact in policy making and societal advancements	Influential research, recognition, and awards in various research findings	Well prepared for future, highly demanding in industries, research and academics	Interdisciplinary collaborations to overcome real-world challenges	Culturally inspiring environment, invites people from globe
University of California	Significant research and impact in various fields	Attracts esteemed academicians and experts in respective fields	Exceptional in academics and beyond	Innovation and entrepreneurship culture to translate ideas into practical applications	International recognition as prime academic institution
	Ground-breaking research in science, social science, engineering, public health, and humanities	Exceptional academic credentials, scholars, practitioners, and expertise in research	Rigorous education, hands on research practice, community, and public services	The Berkeley Haas and the SkyDeck startup initiatives to nurture entrepreneurship	International collaborations with academic, industry, and research institutions
	Major discoveries, advancements in knowledge, and impact on societal policy change	Impactful research, high quality publications, interdisciplinary and innovative collaborations	High demand in industry and academics. Leaders in various fields	Interdisciplinary collaborations and commercialization of findings	Globally connected academic environment through students and faculty all over the globe

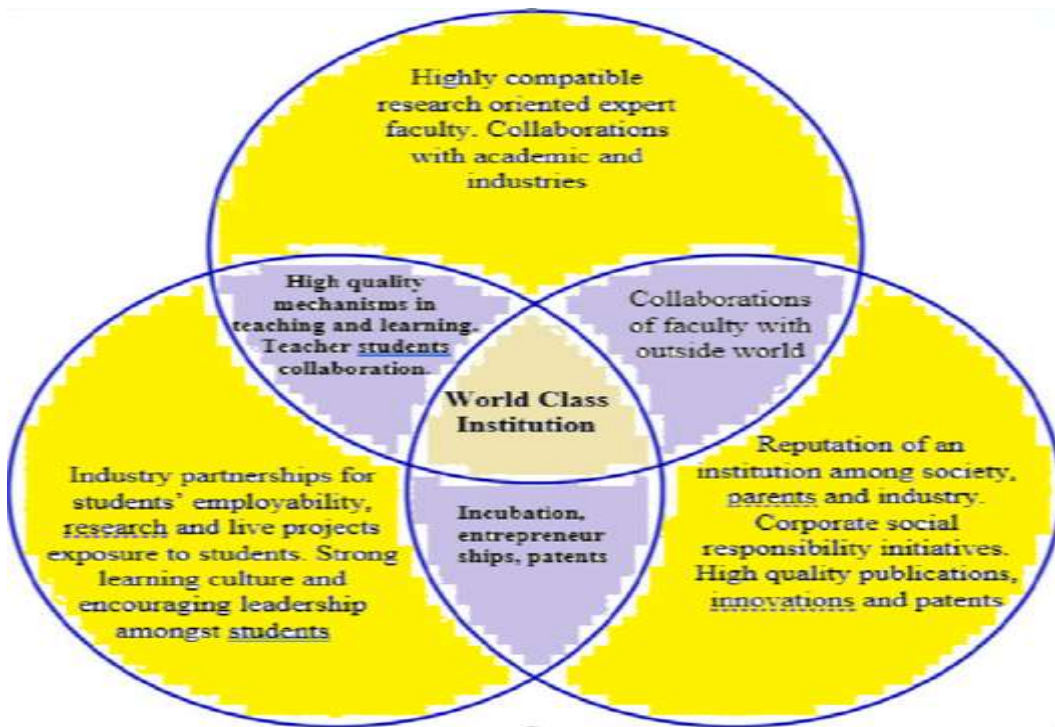
Name of the University	Quality of research	Quality and expertise of faculty	Achievements and success of students	Quality of innovations and contributions in entrepreneurship	Global recognitions and collaborations
ETH Zurich university	Exceptional research and impact in science and technology	World-class faculty member, highly accomplished	Exceptional academic and professional career	Turns ideas into practical applications	Well known in science, engineering, and technology
	cutting-edge research in mathematics, architecture, environment	Distinguished scholars, academicians, researchers with advanced expertise and credentials	Rigorous education, hands on training, and access to state-of-the-art resources	Established ETH Entrepreneur Club and the ETH Innovation and Entrepreneurship Lab	International collaborations and knowledge sharing with universities and industries
	Landmark discoveries influenced industry practices and policies	Impactful research, high quality publications and industry collaborations	Highly sought by leading academic and industrial organizations. Great leaders	interdisciplinary collaboration, technology transfer, and commercialization of research outcomes	Multicultural and vibrant academic environment

In line with the above reviewed literature some of the researchers in this fields have shared their knowledge and outcomes of their study in academic excellence. The views of these researchers are as mentioned in the following section in the tabular form.

Reference	Key highlights of study	Outcomes, suggestions, and future directions
Banker and Bhal (2020)	This qualitative study discusses the unique challenge of Indian universities in global scenario and the role of leaders from globally successful universities. This study is based on the interview design to understand the roles and responsibilities of leaders. The interview script of twelve global academic leaders were analyzed using Nvivo Pro. Four different categories of leadership and their nine responsibilities were mapped using six-step thematic analysis approach	This study identified unique inclusion theme 'social inclusion' as a catalyst in global status of Indian higher education. In conclusion section this study mentions about governance; financing; degree levels; programs offered; and language as five dimensions to better understand Indian higher education system. This study concludes that to become a worldclass institution, India needs mix of visionary and distributed style leaderships in an academic institution.
Gourlay and Stevenson (2017)	This editorial study mentioned about widespread research in the area of academic excellence with different researchers connecting academic excellence with students' satisfaction, research, infrastructure, publications, competence to upgrade with everchanging academic environment etc.	This article mentioned about number of authors mentioning the relationship between increasing awareness about excellence in higher education and marketisation. This article cautioned about treating students as a customer and projecting an academic excellence as an entitlement of students by treating them as customers. According to authors this may erode the academic values and intellectual development. The key challenge according to this study in higher education excellence is a complex one and emphasized on valuing teaching and enhancing student learning and at the same time maintaining and reinscribing the required core values of excellence.

Reference	Key highlights of study	Outcomes, suggestions, and future directions
Salmi, J. (2016)	This study mentioned about important role of each type of institution in the global development and, this is the key focus of governments. As a national prestige, the number of governments giving importance to excellence in higher education institutions is increasing.	This study suggested homogenized development of all types of higher educational institutions to have high standards at par with global academic excellence. The spending and vision in these directions needs to be enhanced at higher leadership levels in the countries of the world.
Hazelkorn (2009)	According to Hazelkorn (2009), global rankings are creating furor in research articles and academic citations. The author cautioned about the rationality of educational institutions using rankings for survival and further setting up targets, strategic plans, and defining priorities. This paper provides a comparative analysis of rankings in higher education and its impact on policy making at national level for academic excellence.	The author in the concluding remarks cited the clear evidence of higher educational institutions using rankings for their decision making in pursuit of academic excellence.

The above reviewed literature can be summarized through following vane diagram for an academic excellence.



Discussion

The comparative analysis in section-3 demonstrates that academic excellence is an ongoing and updating process. There are key aspects or factors, existence of which leads to an academic excellence. These factors are quality of research, quality of faculty, quality and successes of

students, innovation and entrepreneurship, global reputation, infrastructure and resources, and international collaborations. Infrastructure and resources are the physical part of an academic excellence. This is altogether a vast area of discussion and financial planning.

Utilizing available infrastructure and resources for an academic excellence is very dynamic phenomena and it needs active planning, implementation and practicing academic excellence initiative by institutions human resources. In the pursuit of academic excellence and reputation of an institution, systematic and impactful contributions from institution's manpower are highly desirable. From the comparative analysis of top ten world class universities, it can be observed that all of them are committed to the following parameters and dimensions of an academic excellence. (Uygur, Duberman, & Ferguson, 2017)

Quality of research: These world class universities provide all resources and tools for nurturing research culture. Focus and commitment on impactful and high-quality research publications, authoring books, international research collaborations with academia, industries, research institutes, government organizations, and public services is the key feature of all world-class universities. Ongoing research funding creates an environment conducive for impactful scientific research ideas and advancements in societal contributions. All the universities have dedicated planning and funding through expert and scholars in different fields of study.

Quality of faculty: Every university focusses on attracting pool of faculty those are academic leaders, outstanding research scholars, and practicing experts. Not only these universities focus on recruitment of these faculty members but also have well defined policies and resources to retain these faculties on sustained basis. The distinguished faculty members use their expertise in quality research, strategic teaching methodologies, and impactful contributions in the academic excellence. All universities have world class recruitment policies to attract the talent pool of faculties across the globe.

Student achievements and successes: All the world-class universities, primarily focus on attracting high achieving talents and entrepreneurial minds through their plans and programs for betterment of students through an academic excellence. During graduation, these students are exposed to dynamic educational activities and training to develop their critical thinking, innovation skills, leadership qualities, and academic fundamentals. All world-class universities focus and strive to establish well define and result oriented programs for curricular and co-curricular activities for academic and professional developments of students. Students learn to do applied research, transfer these ideas into reality to solve real life problems of society, work on independent projects, hand on training activities, entrepreneurship development, and international research collaborations. With a dynamic and diverse academic environment, these students achieve higher and higher successes during and after the graduation. Students at these world-class universities become future leaders, and are highly sought by employers, academic institutions, industries, public services, research organizations across the globe.

Quality of innovations and contributions in entrepreneurship: All the mentioned world-class universities in this study have prime focus on innovations and entrepreneurship. Focus on applied research, transferring innovations and research finding into commercial benefits, letting students build innovative ideas into entrepreneurial successes, incubation centers, special entrepreneurship initiative are vastly established, practiced, and maintained for budding innovators and future entrepreneurs. These world-class universities have produced renowned entrepreneurship through their such programs and initiatives. Overall, nurturing innovation culture, transfer research findings into commercial avenues, technology transfer, business incubation, international entrepreneurial and innovation collaborations etc. are continuously

and vibrantly practiced by these world-class universities. International recognitions and reputations: World class universities receive recognitions and reputations through their extraordinary scholar faculties and dynamic and high performing students in various fields line engineering, technology, art, humanities, sciences, natural sciences, nanotechnology, artificial intelligence, economics, mathematics, business etc. Associations of faculty members with renowned government bodies, research institutions, industries and public services enhances the reputation of these universities. Their faculty members have impactful research and publications and recognitions and scholarships from globally accepted organizations. Students of these universities become leading resources in academics, public services, research organizations and industries. International research collaborations and knowledge transfer add to the reputation and recognitions of world class universities. The inflow of faculty and students across the global makes dynamic and diverse academic environment at these institutions. (Yarahmadian et al.,2022)

Conclusion and Future Research Directions

It is highly challenging to attract faculty members and students across the globe, equally challenging is to retain this pool of expert professionals and high achievers on sustained basis. The focus and commitments of leaders and team members of an institutions, make them world class institutions of academic excellence.

The key focus of this study was to collect an information about world class institutions contributing to an academic excellence and analyzing key factors established, practiced, and maintained on sustained basis. The universities discussed in these studies have been global leaders in an academic excellence since significant period. In subsequent study, the focus can be extended to resources, financial planning, and capacity building for academic excellence. Apart from this, future challenges demand on focusing assessment and evaluation system, diversity and inclusivity aspects, challenges of future in interdisciplinary research with advancements in artificial intelligence, cross-cultural understanding, and global perspective of people.

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