

How and Why Wharton Business School became World Topper – A Case Study on Organizational Quest for Excellence of First US Business School

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ABSTRACT

After accepting quality higher education as service, many global business schools are competing to attract intelligent students to various innovative courses and by training them to become further smart, providing better challenging placements in the corporate sector with lucrative salaries. Such schools competing globally by differentiating their education model through top-level infrastructure, globally competitive faculty member, providing industry oriented and research-based curriculum, customized curriculum and teaching methods through providing a choice from an infinite number of electives, and competence based examination and evaluation system. Recent ranking results announced by the USA based Elsevier's SSRN identified Wharton Business School of the University of Pennsylvania, USA as Ranked ONE business school in the world in terms of its number of annual research paper publications. Wharton's 235-plus professors are one of the largest, most published faculties at any business school. The standing and affiliated faculty members of WBS work within and collaborate across 10 academic departments. For 2019 outgoing MBA batch, the school admitted 863 students from 65 countries out of 6,692 applicants. In this paper, we have analysed the operational and business strategy of Wharton business school in its quest for excellence and courage to innovate decisions on academic performance and research performance and compared with its competitors in the same country like Booth School of Business, Harvard B-School, Stanford Graduate B-School, Stern B-School, Columbia B-School, and Sloan B-School.

Keywords: SSRN Ranking, Wharton Business School, Operational and business strategy in Business school, Research case study, Faculty research output, Organizational Strategy, Quest for excellence in higher education.

1. INTRODUCTION

Industry analysis and company analysis are considered as a kind of research methods in business management research [1-3]. Out of many industry sectors, education is considered as an industry of services. A business school is a part of global higher education industry which is open for innovations for sustainability due to their challenges of self-financed growth and expansion. A business school is a university-level institution trains and confers degrees in business administration or business management [4-5]. Such a school is also known as school of business administration, school of management, or colloquially b-school or biz school. A business school teaches various topics related to business administration and decision making. The topics may be accounting, administration, economics, entrepreneurship, finance, human resource management, international business, logistics, marketing, management information systems, management science, organizational psychology, organizational behaviour, public relations, research methods, real estate, strategy, among others. Most of the business schools situated around the world offers undergraduate programmes in business management like BA, B.Sc., B.S. BBA, BMS etc. and postgraduate programmes like M.Sc., M.S., MBA, MMS, PGDM, Executive MBA etc. research programmes like M.Phil., Ph.D., DBA, Fellow programmes etc. and post-doctoral programmes like D.Sc., D.Litt. etc. through the campus based residential model, campus based full-time model, campus based part-time model, online course model and also using distance education model. Among them, MBA two years campus based full-time programme is found to be most admirable and successful professional business programme with various functional specialization opportunities. Most of the business schools around the world use three kinds of pedagogy in their teaching-learning methods which include (1) Case based discussion approach, (2) Concept based discussion approach, and (3) Skill based training approach. The delivery methods include lecture based, interactive discussion based, experimental learning based, experiential learning based, and online learning methods are found to be popular in different business schools around the world. Apart from academic innovations, business schools also impart skills and competency of independent thinking among the students while making decisions. Hence business schools have developed a teaching-learning model integrated with individual and group research to improve the knowledge, skills, and confidence of the students to make them the best decision

makers for un-structure problems and unanticipated challenges. Such models created global industry leaders with un-precedential capabilities to lead any kind of business. Another advantage of studying in business schools is found to be their involvement in arranging attractive placement opportunities with lucrative salaries at top multi-national companies made such courses highly chargeable in terms of tuition fees. With such reason, all business schools are trying to compete with each other to differentiate themselves in terms of achieving academic excellence and research productivity. Based on Elsevier's SSRN Ranking of December 2017 for a number of research publications during last 12 months, global business schools are ranked as shown in Table 1 and USA B-Schools ranking is shown in Table 2.

Table 1 : Elsevier's SSRN Top 1000 World Business Schools Ranking in December 2017 based on Number of Research paper Publications. (Source : www.ssrn.com)

S. No.	B-SCHOOL	RANK	NO. OF PUBLICATIONS DURING LAST 12 MONTHS	NO. OF FACULTY MEMBERS REGISTERED IN SSRN
1	THE WHARTON BUSINESS SCHOOL, UNIVERSITY OF PENNSYLVANIA, USA	ONE	262	449
2	BOOTH SCHOOL OF BUSINESS, UNIVERSITY OF CHICAGO, USA	TWO	224	292
3	STERN SCHOOL OF BUSINESS, NEW YORK UNIVERSITY, USA	THREE	223	358
4	SRINIVAS INSTITUTE OF MANAGEMENT STUDIES, SRINIVAS UNIVERSITY, INDIA	FOUR	209	52
5	COLUMBIA BUSINESS SCHOOL, COLUMBIA UNIVERSITY, USA	FIVE	193	289
6	HARVARD BUSINESS SCHOOL, HARVARD UNIVERSITY, USA	SIX	180	365
7	SCHOOL OF BUSINESS & ECONOMICS, HUMBOLDT UNIVERSITY OF BERLIN, GERMANY	SEVEN	164	94
8	SLOAN SCHOOL OF MANAGEMENT, MIT, USA	EIGHT	161	272
9	UNSW BUSINESS SCHOOL, UNIVERSITY OF NEW SOUTH WALES SYDNEY, AUSTRALIA	NINE	152	367
10	STANFORD GRADUATE SCHOOL OF BUSINESS, STANFORD UNIVERSITY, USA	TEN	131	181

Table 2 : Elsevier's SSRN Top 500 B-Schools USA Ranking in December 2017 based on Number of Research paper Publications. (Source : www.ssrn.com)

S. No.	B-SCHOOL	RANK	No. OF PUBLICATIONS DURING LAST 12 MONTHS	NO. OF FACULTY MEMBERS REGISTERED IN SSRN
1	THE WHARTON BUSINESS SCHOOL, UNIVERSITY OF PENNSYLVANIA	ONE	262	449
2	BOOTH SCHOOL OF BUSINESS, UNIVERSITY OF CHICAGO	TWO	224	292
3	STERN SCHOOL OF BUSINESS, NEW YORK UNIVERSITY, USA	THREE	223	358
4	COLUMBIA BUSINESS SCHOOL, COLUMBIA UNIVERSITY, USA	FOUR	193	289
5	HARVARD BUSINESS SCHOOL, HARVARD UNIVERSITY, USA	FIVE	180	365
6	SLOAN SCHOOL OF MANAGEMENT, MIT, USA	SIX	161	273
7	STANFORD GRADUATE SCHOOL OF BUSINESS, STANFORD UNIVERSITY, USA	SEVEN	131	181
8	STEPHEN M. ROSS SCHOOL OF BUSINESS, UNIVERSITY OF MICHIGAN, USA	EIGHT	130	230
9	DARDEN SCHOOL OF BUSINESS, UNIVERSITY OF VIRGINIA, USA	NINE	126	441
10	HAAS SCHOOL OF BUSINESS, UNIVERSITY OF CALIFORNIA, BERKELEY, USA	TEN	118	182

Table 3 : Elsevier's SSRN Top 1000 International Business Schools Ranking (Excluding USA) in December 2017 based on Number of Research paper Publications. (Source : www.ssrn.com)

S. No.	B-SCHOOL	RANK	NO. OF PUBLICATIONS DURING LAST 12 MONTHS	NO. OF FACULTY MEMBERS REGISTERED IN SSRN
1	SRINIVAS INSTITUTE OF MANAGEMENT STUDIES, SRINIVAS UNIVERSITY, INDIA	ONE	209	52
2	SCHOOL OF BUSINESS & ECONOMICS, HUMBOLDT UNIVERSITY OF BERLIN, GERMANY	TWO	164	94
3	UNSW BUSINESS SCHOOL, UNIVERSITY OF NEW SOUTH WALES SYDNEY, AUSTRALIA	THREE	152	367
4	SINGAPORE MANAGEMENT UNIVERSITY, SINGAPORE	FOUR	126	286
5	UNIVERSITY OF MELBOURNE - FACULTY OF BUSINESS AND ECONOMICS, AUSTRALIA	FIVE	117	263
6	UNIVERSITY OF TORONTO - ROTMAN SCHOOL OF MANAGEMENT, CANADA	SIX	115	196
7	MONASH BUSINESS SCHOOL, AUSTRALIA	SEVEN	111	307
8	VU UNIVERSITY AMSTERDAM - FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION, NETHERLANDS	EIGHT	102	195
9	COPENHAGEN BUSINESS SCHOOL, DENMARK	NINE	93	288
10	LONDON BUSINESS SCHOOL, UNITED KINGDOM	TEN	92	233

As per table 1, major numbers of B-Schools (except three out of ten) which have done more research publications during last year are from the USA. While comparing Table 1, Table 2, and Table 3, the Wharton Business School of the University of Pennsylvania is found to be maintaining number ONE position in the category of the number of research publications (262) as well as in terms of the number of researchers (449). Being the first and oldest business school born and sustaining in the USA, Wharton B-School is maintaining its position both in terms of the number of researchers in a B-School and the number of research papers published by a B-School. This achievement motivated us to study the business (academic and research) strategy of Wharton Business School as a Business organization in Education service industry [6].

2. OBJECTIVES

The objectives of this case study on a Top B-School of the world is to find answers to the following issues :

- (1) To know and analyse the growth and development saga of World Top Business School, i.e., Wharton Business School.
- (2) To study and analyse the various academic programmes and the strategies to achieve academic excellence of Wharton Business School.
- (3) To study the research & publication strategy of Wharton Business School.
- (4) To study the Faculty Development & Motivation strategy to achieve Faculty excellence at Wharton Business School.
- (5) To study the contribution of Deans of the school for overseas expansion, starting new programmes, and contribution to innovative research as the role models for the stakeholders of the School during last ten years.
- (6) To compare the quest for excellence and courage to innovate strategy on academic performance and research performance of Wharton Business School with its competitors in the same country like Booth School of Business, Harvard Business School, Stern Business School, Columbia Business School, and Sloan Business School.

3. WHARTON B-SCHOOL GROWTH SAGA

3.1 History of the School :

Founded in 1740, Penn is America's first university and a member of the Ivy League. The main campus in Philadelphia was established on the western edge of the city in the 1870s and covers over 300 acres of city landscaping. The Wharton Business School of the University of Pennsylvania is started by Joseph Wharton, an iron miner, and a self-taught businessman during 1881 by making a contribution of \$1,00,000 to the University of Pennsylvania. The early Wharton School gave focus on the social sciences in its undergraduate curriculum. Between 1895 and 1915, Prof. Edmund James established Wharton schools business curriculum by developing and teaching the new subjects of management and finance. Wharton thus quickly started churning out graduates in business management who could able to become prominent businessmen in different cities of USA.

The University of Pennsylvania founded by Benjamin Franklin which had been a center of theory in liberal arts for a century and a half changed its brand as an innovative university through the new Wharton School as most practical school and brought Benjamin Franklin's dream to a new height which Franklin himself never envisioned. Further advancing into a postgraduate curriculum, from 1921, Wharton started to award MBA degree in business management and identified as a prominent national agency of industrial research [6].

Wharton Business School moved to its own building on the University campus in 1952 and later, in 1959, the undergraduate program was redesigned with radical reform which gave rise to the modern Wharton School curriculum. The school further renewed its academic orientation in 1975 by shifting its social sciences focus to Arts and Sciences. Since then WBS has been able to focus on what it has always excelled in, and what it was founded to achieve, presenting students a quality business education and training through its innovative research-based curriculum. The pioneering vision of Wharton B-School was to produce graduates who would become the pillars of the society. The institute intended to maintain a long tradition of educating visionary business leaders in academia, business, government, and not-for-profit organizations. Presently, WBS has expanded the scope of this vision to become the most comprehensive source of business knowledge globally with over 235 faculty members, 96,000 alumni, 5,000 students across 10 academic departments, 33 research centers, and more than 9,000 executive education participants annually. WBS, being a private business school, has enough freedom to formulate its strategy to make innovations in higher education model compared to public and government controlled business schools [7-26].

3.2 Power of Wharton Business School :

(1) Global Influences :

WBS through its Global Engagement strategy allows its stakeholders to **explore the world to innovate, learn and create new knowledge to lead in the global environment**. *WBS also develops and offers Global Modular Courses to*

its Students to engage with business concepts firsthand in intense, immersive workshops held in relevant global locations.

(2) Monopoly in Data Analytics :

The Wharton Customer Analytics Initiative (WCAI) is the preeminent academic research center focusing on the development and application of customer analytics methods. WCAI is the world’s preeminent academic research center focusing on the development and application of customer analytics methods. Through our innovative Research Opportunity program and R&D “crowdsourcing” approach, WCAI enables academic researchers from around the world to help companies understand how to better monetize the individual-level data they collect about customers through the development and application of new predictive models. We marry our work with companies and researchers around the world with a range of co-curricular student programs that foster talent development and recruitment.

Launched with a generous gift from Wharton alumnus Art Bilger and his wife, Dahlia, and an executive partnership with Omnicom Group, Inc., WCAI has a broad impact on the practice of data-driven business decision-making, and the dissemination of relevant insights to managers, students, and policymakers. Customer Analytics refers to the collection, management, analysis and strategic leverage of a firm’s granular data about the behavior(s) of its customers. Customer Analytics can be characterized as:

Table 4 : Features of Customers Analytics

S. No.	FEATURE	DETAILS
1	BEHAVIOURAL	PRIMARILY FOCUS ON OBSERVED BEHAVIOURAL PATTERN
2	LONGITUDINAL	IT IS ALL ABOUT HOW THESE BEHAVIOURS MANIFEST THEMSELVES OVER TIME
3	INHERENTLY GRANULAR	FOCUSED TO INDIVIDUAL LEVEL
4	FORWARD LOOKING	ORIENTATION TOWARDS PREDICTION NOT ONLY DESCRIPTION
5	MULTI-PLATFORM	COMBINING BEHAVIOURS FROM MULTIPLE MEASUREMENT SYSTEMS

(3) Entrepreneurship & Innovation :

WBS through its Penn Wharton Entrepreneurship programme helps Penn students interested in entrepreneurship & innovation find their unique path and career. Penn Wharton Entrepreneurship program helps Penn students who are interested in entrepreneurship & innovation to find their unique path and career. With the objective of creating and nurturing entrepreneurs, through exploring new business opportunities and start-ups, developing a venture, launching a start-up, and scaling it to new heights. This is done through following four was :

- (i) Provides an entrepreneurship tool in the name of Penn entrepreneurship Ecosystem that brings together all the entrepreneurial resources available at Penn, in the Philadelphia region, and at Wharton San Francisco for its students, alumni, and open public.
- (ii) Helps new and budding entrepreneurs, through a consultation model called **Start here Mondays** to discuss and get suggestions from Wharton Staff members on every Monday. This model helps the interested students, alumni, and even public to start a new business.
- (iii) Through **classroom based training** by providing Entrepreneurship and Innovation as a major for MBAs and a specialization for undergraduates and training experience theory and practice in and out of the classroom with world-renowned faculty or successful business owners WBS distinguished by its ability to combine theory with practice, allowing students to gain access and insight from the entrepreneurial business community. Students and faculty members are also encouraged to do **innovative research** in a Sol C. Snider Entrepreneurial Research Center which is the first center dedicated to the study of entrepreneurship.
- (iv) Funding the new creative ideas through organizing competitions periodically, offering prizes and awards, funding the start-up projects by offering **Wharton Innovation Fund**.

(4) Online Learning

Through thoughtful and sensitive experimentation with technology, we provide accessible and meaningful learning experiences to learners around the world. Wharton offers multiple open enrolment online learning opportunities, from free individual courses to specialized programs, to high-touch professional education [14].

Table 5 : List of Online courses offered by Wharton as 30/12/2017

S. No.	COURSE TYPE	NUMBER OF COURSES (29)	COLLABORATIVE SERVICE PROVIDER	DURATION	FEE/COURSE
1	BUSINESS SUCCESS RELATED COURSES	04	COURSERA	04 WEEKS	-
2	ACHIEVING BUSINESS SUCCESS RELATED COURSES	04	COURSERA	04 WEEKS	-
3	ENTREPRENEURSHIP RELATED COURSES	04	COURSERA	04 WEEKS	-
4	ANALYTICS RELATED COURSES	04	COURSERA	04 WEEKS	-
5	FUNCTIONAL AREA OF BUSINESS RELATED COURSES	04	COURSERA	04 WEEKS	-
6	OTHER BUSINESS RELATED COURSES	04	EDX	06 WEEKS	RS. 37,468
7	DECISION BUSINESS RELATED COURSES	05	COURSERA	04 WEEKS	-

(5) Expanded Leadership :

WBS focuses on how to apply new business principles which are the outcome of its research initiatives on public policies. The policy issues of many important areas in the society including education, energy, environment, national budget, health insurance, finance, housing, labour, risk management, social insurance, technology, telecommunications, trade, urban development, etc. by identifying and predicting the trends on debit, employment, healthcare, tax, etc and its impact on business & society. Through expanded leadership initiative, WBS wants to enhance the contribution of B-Schools for better public policies. WBS also organizes a 90 minutes session every month on its research contribution on public policy influence.

(6) Social Impact :

The Wharton Social Impact Initiative advances the science and practice of social impact through research, hands-on training, and outreach. As the leading research-led business school in the world, Wharton is building the evidence base for impact investing and more through its rigorous academic research. Through its experiential learning model, offering training opportunities, and thought leadership initiatives in training and outreach, WBS is growing the talent pipeline for social impact business leaders of the today and the future.

4. WHARTON ACADEMIC PROGRAMMES

Through its societal inclusive strategy of everybody throughout the world, Wharton offers a broad slate of academic programs for every stage from pre-college to executive, under seven headings.

4.1 Undergraduate Programmes

(1) BS in Economics :

Wharton’s undergraduate degree program offers an innovative program on business and more — an innovative program that combines business and liberal arts on one Ivy League campus. Students choose specialized areas of study with more than 20 concentrations offered across the 10 different departments. Graduates earn a BS in Economics from the Wharton School.

(2) BA/BS in International Studies :

This unique, four-year interdisciplinary undergraduate program integrates business education, advanced language training, and a liberal arts education through its Huntsman graduates programme. Huntsman graduates earn two degrees — a BA in International Studies from the School of Arts and Sciences and a BS in Economics from Wharton.

(3) BS/BSE/BAS in Management & Technology :

The M&T Program focuses on the technical and managerial skills necessary to define and solve problems in today's complex technologically intensive society. Graduates earn both a BS in Economics from Wharton and either a BS or a BAS in Engineering from the School of Engineering and Applied Science.

(4) BA/BS in Life Sciences & Technology :

The Roy and Diana Vagelos flagship Program offers an innovative, interdisciplinary curriculum that combines extensive coursework in both bioscience and business and prepares students for careers in the rapidly expanding life sciences sector. Graduates earn a BA in Life Sciences from the College of Arts and Sciences and a BS in Economics from Wharton.

(5) BS in Nursing & Healthcare Management :

This coordinated dual-degree program addresses the dynamic changes in the delivery and financing of health care services in the United States and the public's concern about the quality, cost, and management of health care. The program combines a BS in Nursing from the School of Nursing with a BS in Economics from Wharton.

(6) Other Dual Degree Programmes :

Wharton students can pursue an additional degree by designing their own dual-degree program, choosing from among more than 50 areas of study at Penn's three other undergraduate schools: the College of Arts & Sciences, the School of Nursing, and the School of Engineering & Applied Science.

4.2 Postgraduate Programmes

(1) MBA Flagship Programme

The Wharton MBA offers unmatched global options and a distinctly collaborative experience — with more courses and programs than any other business school. Students get the business knowledge and specialized skills to expand career choices and join one of the world's largest and most prestigious alumni networks.

(2) MBA for Executives

Available in Philadelphia and San Francisco, the Wharton MBA for Executives is the full Wharton MBA — the same degree, innovative curriculum, and world-class faculty as in Wharton's globally acclaimed full-time program – in a specially designed part-time schedule.

(3) MBA/MA Dual Degree Programme

The first joint-degree program in international management, the MBA/MA Lauder Program prepares future business leaders by integrating the Wharton MBA with an MA in International Studies from Penn's School of Arts & Sciences. The program emphasizes cross-cultural competency and advanced language training.

(4) JD/MBA Dual Degree Programme

The Francis J. & Wm. Polk Carey JD/MBA Program is a fully integrated three-year program that combines Wharton's MBA program with Penn's elite law.

(5) MBA/MA Dual Degree Programme

This 3-year, dual-degree program, which pioneers area studies and the integration of international politics and economics, is offered with the Nitze School of Advanced International Studies (SAIS) of The Johns Hopkins University in Washington, DC. Students work towards a Wharton MBA and an MA in international relations from SAIS.

(6) MBA/MPA Dual Degree Programme

Wharton students may choose one of three dual-degree programs with Harvard's Kennedy School of Government (KSG): Master in Public Administration, Master in Public Administration/International Development, or Master in Public Policy. All are typically two-year programs, but the dual-degree option allows students to complete the KSG portion of their dual degree over three semesters.

(7) Other Dual Degree Programmes

With 12 world-leading graduate and professional schools at Penn, students can select from the following dual-degree options: Biotechnology, Design, Engineering, Law, Medical Sciences, Nursing, and Social Work. This includes the Francis J. & Wm. Polk Carey JD/MBA Program with Penn Law.

4.3 Doctoral Programmes

(1) Ph.D. in Accounting

Wharton's PhD program in Accounting takes a multidisciplinary approach to meeting the needs of today's complex markets — integrating finance and economics with broader perspectives on organizational issues and the business environment.

(2) Ph.D. in Applied Economics

Wharton's PhD program in Applied Economics gives students the tools and training to get jobs in business schools, public policy programs, and applied-oriented economics departments. Drawing on a large faculty of applied economists across multiple Wharton departments and the Law School, the program allows specialization in a number of areas.

(3) Ph.D. in Ethics & Legal Studies

Wharton's PhD program in Ethics and Legal Studies is the first doctoral program of its kind, built on Wharton's pioneering work in business ethics. It focuses on ethical and legal norms of conduct in management. Students take core courses in ethics and law in business, plus courses in one additional concentration (e.g., management, finance, marketing, or accounting).

(4) Ph.D. in Finance

Wharton's PhD program in Finance provides a solid foundation of the theoretical and empirical tools of modern finance, drawing heavily on the discipline of economics. Students prepare for careers at the world's leading academic institutions in the areas of: Banking and Financial Institutions, Corporate Finance, International Finance, and Financial Instruments and Portfolio Management.

(5) Ph.D. in Healthcare Management & Finance

Wharton's PhD program in Health Care Management and Economics provides an interdisciplinary health services research focus applicable across private and public sectors. The program combines intensive training in health care systems and health services research with advanced training in a traditional business discipline.

(6) Ph.D. in Management

Wharton's PhD program in Management is flexible and interdisciplinary, applying social science disciplines and research methods to management problems. It offers specializations in strategy, international business, organizational behaviour and theory, and human resource management.

(7) Ph.D. in Marketing

Wharton's PhD program in Marketing is interdisciplinary — students generate creative ideas and hypotheses, develop the analytical skills needed to evaluate them, and receive the training to communicate them. Students work with faculty who lead in developing new research methodologies and implementing new decision models and techniques in the practice of marketing.

(8) Ph.D. in Operations, Information Management & Decision Processes

Wharton's PhD program in Operations, Information Management & Decision Processes emphasizes research on real management problems and maintains a balance between theory and implementation. The faculty trains scholars in decision processes, information and decision technologies, information strategy, operations management, and operations research.

(9) Ph.D. in Statistics

Wharton's PhD program in Statistics allows students to engage in both cutting-edge theory and applied problems. These include problems from a wide variety of fields within Wharton, such as finance, marketing, and public policy, as well as fields across Penn such as biostatistics within the Medical School and computer science within the Engineering School.

4.4 Executive Education Programmes

(1) Wharton Executive Education

Nearly 9,000 executives from around the world participate annually in Wharton Executive Education open-enrollment and custom programs. Wharton's unique Impact Through Education approach delivers both immediate results to executive participants as well as continued knowledge benefits through follow-on activities.

(2) Open Enrollment Executive Education

Find out more about Executive Education's open-enrollment programs, designed to leave a lasting impact on executives and their organizations.

(3) Custom Programme for Organizations

Partner with some of the brightest minds in business for customized solutions to your organization's unique challenges.

4.5 Global Programmes

(1) Wharton INSEAD Alliance : The Wharton-INSEAD Alliance extends top-quality business education across four dedicated campuses: Wharton's U.S. campuses in Philadelphia and San Francisco, and those of INSEAD in Fontainebleau, France, and Singapore. The Alliance offers student exchange programs, a collaborative research center, and joint executive education programs.

(2) International Exchange Programmes : At the undergraduate level, Wharton offers 20+ programs with the world's top business schools. Penn also has partnerships with more than 100 programs across the globe where Wharton students can take arts and sciences courses. For MBA students, Wharton offers semester-long international exchange program options at 17 partner schools in 15 countries.

(3) Wharton/ School of Advanced International Studies : This 3-year, dual-degree program, which pioneers area studies and the integration of international politics and economics, is offered with the Nitze School of Advanced International Studies (SAIS) of The Johns Hopkins University in Washington, DC. Students work towards a Wharton MBA and an MA in international relations from SAIS.

(4) Joseph H. Lauder Institute of Management & International Studies : The first joint-degree program in international management, the MBA/MA Lauder Program prepares future business leaders by integrating the Wharton MBA with an MA in International Studies from Penn's School of Arts & Sciences. The program emphasizes cross-cultural competency and advanced language training.

(5) Huntsman Programme in International Studies & Business : This is a four-year interdisciplinary unique undergraduate programme of study that integrates business education, advanced language training, and a liberal arts education. Huntsman graduates earn dual degrees — a BA in International Studies and a BS in Economics from the Penn School of Arts and Sciences and from the Wharton School respectively.

(6) Global Curriculum : At all levels of education, Wharton's curriculum integrates coursework that provides students with international expertise and experience. Students may focus their studies in international business through concentrations or majors or through special hands-on courses and programs such as the Wharton International Program and the Global Consulting Practicum.

4.6 Interdisciplinary Programmes

(1) Huntsman Program in International Studies & Business : This unique, four-year interdisciplinary undergraduate program integrates business education, advanced language training, and a liberal arts education. Huntsman graduates earn two degrees — a BA in International Studies from the School of Arts and Sciences and a BS in Economics from Wharton.

(2) The Jerome Fisher Programme in Management & Technology : The M&T Program focuses on providing the technical and managerial skills required to define and solve problems in today's complex technologically intensive society. Graduates earn both a BS in Economics from Wharton and either a BS or a BAS in Engineering from the School of Engineering and Applied Science.

(3) The Roy & Diana Vagelos Programme in Life Sciences & Management : The Vagelos Program offers an innovative, interdisciplinary curriculum that combines extensive coursework in both bioscience and business and prepares students for careers in the rapidly expanding life sciences sector. Graduates earn a BA in Life Sciences from the College of Arts and Sciences and a BS in Economics from Wharton.

(4) Nursing & Healthcare Management : This coordinated dual-degree program addresses the dynamic changes in the delivery and financing of health care services in the United States and the public's concern about the quality, cost, and management of health care. The program combines a BS in Nursing from the School of Nursing with a BS in Economics from Wharton.

(5) Joseph H. Lauder Institute of Management & International Studies : The first joint-degree program in international management, the MBA/MA Lauder Program prepares future business leaders by integrating the Wharton MBA with an MA in International Studies from Penn's School of Arts & Sciences. The program emphasizes cross-cultural competency and advanced language training.

4.7. Pre-College Programmes

(1) LEAD Programme : LEAD is a three-week program introducing minority high school students to key areas of business. Established at Wharton, and reflecting a commitment to developing business leaders through business education, the LEAD program has become a nationwide initiative with programs at 10 other universities.

(2) Leadership in Business World : This four-week summer program is for rising high school seniors and features classes, trips, and activities designed to give students opportunities to learn about leadership in 21st century business organizations.

(3) Management & Technology Summer Institute : This for-credit summer program is for rising high school juniors and seniors who want to learn how to bring together technological concepts and management principles. The Institute features classes taught by leading Wharton faculty and successful entrepreneurs, as well as lab experience, field trips, and intensive team projects.

(4) Wharton Moneyball Academy : Sponsored by the Wharton Sports Business Initiative (WSBI), the Wharton Moneyball Academy is a summer program that provides an opportunity for talented rising high school juniors and seniors to study sports analytics at the Wharton School of the University of Pennsylvania. This program focuses on using data to make deep discoveries in sports with a focus on becoming a data driven decision maker. Instruction will focus on fundamentals of statistical thinking, real applications employed by statistics professionals in sports analytics and an introduction to statistical programming languages. In addition to learning statistical reasoning and key data analysis skills, students will be primed to be a leader in an increasingly data driven economy. Topics include introductory statistics (including graphical and numerical summaries of data), basic probability theory, statistical reasoning and regression analysis by examining sports stats.

(5) Wharton Sports Business Academy : Sponsored by the Wharton Sports Business Initiative (WSBI), the Wharton Sports Business Academy (WSBA) is a summer program that provides an opportunity for talented rising high school juniors and seniors to study sports business leadership at the Wharton School of the University of Pennsylvania. This program will examine how various academic disciplines, such as management, law, negotiation, marketing, and leadership apply to the sports industry with an overview of the business and legal aspects of various intercollegiate, Olympic, and professional sports enterprises.

5. RESEARCH & PUBLICATION STRATEGIES

Wharton's 235-plus professors are one of the largest, most published faculties at any business school. The standing and affiliated faculty members work within and collaborate across 10 academic departments. Wharton's research centers and initiatives are only the beginning. The faculty publishes regularly and is frequently cited by the press [27-31]. Wharton's deep knowledge is disseminated worldwide through:

5.1 Research at Wharton Through its Innovative Research Centres :

Wharton's 33 research centers and initiatives serve as an intellectual hub for faculty, students, and members of the business community. Researchers from all over the world come to Wharton to study and debate business problems and challenges. Their work generates many new courses, academic programs, community outreach, scholarly published research work, and partnerships among academics, industry, and government.

Table 6 : WBS Research Centres and heading personnel

S. No.	Name of Research Centres	Director/Co-directors	Focus
1	Behaviour Change for Good Initiative	Katherine Milkman and Angela Duckworth,	Research on developing a digital interactive platform to improve the quality of daily decisions about health, education, and savings.
2	Center for Human Resources	Peter Cappelli,	Research on human capital issues including the practice of human resources as well as vendors in the human capital industry. Access

			the most current thinking on talent management, workforce training and education, diversity and more through our faculty research and our networking opportunities with fellow HR executives from around the world.
3	Wharton Customer Analytics Initiative (WCAI)	Eric T. Bradlow,	Programs connect academia to industry with the goal of innovating the field of data analytics, fostering new relationships and dynamic thought leadership.
4	Council on Employee Relations	Peter Cappelli,	Focus on labour relations engagement
5	Penn Wharton Entrepreneurship	Karl T. Ulrich,	Research on entrepreneurship & innovation find unique path and career by exploring new business, develop a venture, Launch of startup, and scaling the company
6	William and Phyllis Mack Institute for Innovation Management	Harbir Singh, Nicolaj Siggelkow and Christian Terwiesch, Saikat Chaudhuri,	Foster industry and academic communities to transform our innovation research into real-world impact, established firms to survive, compete, and thrive. Through a collaborative, cross-disciplinary approach to the study of innovation management, the centre develops practical tools for today's most pressing business challenges.
7	Sol C. Snider Entrepreneurial Research Center	Ian C. MacMillan,	Working around the world to advance understanding of entrepreneurship and global wealth creation, Research interests are in entrepreneurship, new venture management, organizational competence, and strategic management.
8	Wharton Small Business Development Center	Celeste Corrado	Provide business assistance to small businesses in the Greater Philadelphia region. Over 25,000 small businesses and entrepreneurs have benefited from this support since 1980.
9	Boettner Center for Pensions and Retirement Research	Olivia S. Mitchell,	To support scholarly research, teaching, and outreach on global aging, successful retirement, and public and private pensions.
10	Pension Research Council	Olivia S. Mitchell,	Work for generating debate on key policy issues affecting pensions and other employee benefits.
11	Initiative for Global Environmental Leadership	Eric Orts, Joanne Spigonardo	Promotes knowledge for business sustainability through world-class research, transformative teaching and constructive dialogue between top alumni, academic, corporate, government, and non-government organizations. IGEL is a hub for business and sustainability, connecting and leveraging academic capital at Penn to help business leaders of today and tomorrow to create more sustainable industries.
12	Center for Leadership and Change Management	Michael Useem,	Helps to build effective leadership both in the next generation of managers and throughout the organizations through their effort of research and practical application.
13	SEI Center for Advanced Studies in Management	Jerry Wind	SEI is the world's first "think tank" for management education. It ensures the relevance of management research and

			teaching to the evolving needs of business and society in the 21st century by joining with global thought leaders in diverse fields to anticipate the needs of management, identify forces of change, and understand emerging management paradigms by arranging workshops, conferences, and lectures involving senior executives, academic leaders, and students to develop research and educational initiatives to meet the future needs of management.
14	Carol and Lawrence Zicklin Center for Business Ethics Research	William S. Laufer	Serves as a focal point for the normative inquiry in business at the WBS through Center-sponsored research, by embracing a wide range of scholarly approaches, methods, and disciplines.
15	Wharton Global Family Alliance	Raphael (Raffi) Amit and Ian C. MacMillan,	Designed to create and disseminate knowledge that is helpful to substantial families and to their businesses. Highlights how families can impact the societies in which they transact via the social wealth that their enterprises create. Research focus is on family business ownership, governance and management issues, and on family wealth management issues, including substantial work focused on Family Offices.
16	Wharton Neuroscience Initiative	Michael Platt, and Elizabeth Johnson,	Connecting brain science and business to understand how fundamental economic principles like risk, ambiguity, and volatility shape these processes, and why these factors seem to influence different people in different ways and in different choice contexts.
17	Alternative Investments Initiative	Bilge Yilmaz,	The Initiative is a global hub for the development of leading-edge research in alternative investments and focuses on private equity, hedge funds, venture capital, and wealth management.
18	Financial Institutions Center (WFIC)	Richard J. Herring,	An independent Center sponsors primary research on financial institutions and regulatory policy. The WFIC organizes conferences focused on academic research and public policy issues, sponsors a working paper series featuring the work of affiliated scholars from many different institutions, publishes occasional e-books based on WFIC conferences.
19	Jacobs Levy Equity Management Center for Quantitative Financial Research	Christopher Geczy	Dedicated to the advancement of quantitative finance, at the intersection of theory and practice, through the creation and dissemination of innovative knowledge. The center aims to enhance understanding of financial markets through the application of quantitative and statistical techniques and methods to such fields as asset management and security pricing, including the analysis of stocks, bonds and other instruments.
20	Rodney L. White Center for Financial Research	Donald Keim	To promote innovative empirical and theoretical research in

			financial economics, spanning the financial research interests of all members of the Wharton School Finance and related Departments.
21	Fishman-Davidson Center for Service and Operations Management	Morris A. Cohen and Marshall L. Fisher	To provide a solid research and teaching foundation that addresses the operations issues of firms in both the service and manufacturing sectors by facilitating interactions between industry and academics through a portfolio of activities including direct grants to faculty, industry partnerships that bring together a group of companies around a particular issue, impact conferences that enable an exchange of information between faculty and practicing managers, and funded research projects with individual companies.
22	Wharton People Analytics	Matthew Bidwell, Angela Duckworth, Adam Grant, Cade Massey, Katherine Milkman,	The centre use data to advance how organizations make decisions about people, and help leaders operate based on evidence rather than intuition. This new interdisciplinary initiative focuses on research, thought leadership and education of the next generation of experts in this emerging field.
23	Penn Wharton Public Policy Initiative	Kent Smetters, Andrew Coopersmith	Focuses on how to apply new business principles which are the outcome of its research initiatives on public policies in the areas of education, energy, environment, national budget, health insurance, finance, housing, labour, risk management, social insurance, technology, telecommunications, trade, urban development, etc. by identifying and predicting the trends on debit, employment, healthcare, tax, etc and its impact on business & society.
24	Initiative for Global Environmental Leadership (IGEL)	Eric Orts, Joanne Spigonardo,	IGEL works with a diverse and interdisciplinary network to develop and disseminate innovative research and business practices to solve the most pressing environmental issues facing our planet. IGEL also interfaces with top alumni and with academic, corporate, government, and non-government organizations to drive business policies and practices on a global scale.
25	Penn Wharton China Center	Z. John Zhang,	Provides on-the-ground support for the growing numbers of programs and collaborations between WBS and many academic, government, and business partners throughout China.
26	Wharton Global Family Alliance	Raphael (Raffi) Amit and Ian C. MacMillan,	Designed to create and disseminate knowledge that is helpful to substantial families and to their businesses. Highlights how families can impact the societies in which they transact via the social wealth that their enterprises create.
27	Wharton-INSEAD Center for Global Research & Education	Thomas Robertson, Noah Gans, Mauro Guillen	A commitment from both schools to enable & encourage mutual collaboration in MBA, Executive

			Education, Ph.D., Faculty exchange, R&D, and in Alumni activities. Every initiative of The Alliance is driven by the partners to excellence, to innovation and to thought leadership in management in the 21st century.
28	Samuel Zell and Robert Lurie Real Estate Center	Joseph E. Gyourko,	To promote excellence in real estate education and research through support of cutting-edge research for current and future business leaders and policymakers, the facilitation of a partnership between industry professionals and our faculty and students, and the training of the future leadership of the real estate industry.
29	Jay H. Baker Retailing Center	Thomas S. Robertson,	An interdisciplinary research center and innovation think tank facilitating relationships across industry and academia to cultivate thought leadership and top talent across all retail channels.
30	Center for Health Management and Economics	Lawton R. Burns,	Provides scholarship, education, and innovative thinking related to the business, management and policy of health care services, health care technology, and health care financing. It offers Ph.D. in Health Care Management and Economics, MBA Program in Health Care Management, and the BS in Economics with a Concentration in Health Care Management and Policy.
31	Leonard Davis Institute of Health Economics	Daniel Polsky,	To catalyse and facilitate research collaborations and educational programs to integrate knowledge and shape policy for a more effective health system.
32	Risk Management and Decision Processes Center	Howard Kunreuther and Robert Meyer,	Major Research Topics are Floods and Storms, Earthquakes, Terrorism and Cyber, Disaster Insurance, Hazard Mitigation, Infrastructure, Climate Change, Resilient households and communities.
33	Wharton Sports Business Initiative	Kenneth L. Shropshire,	The forum that provides thought leadership and disseminates research for the business of sports.

5.2 Academic Departments & Research Publications

Expansion to many areas within the umbrella of Business School is the essential sustainable strategy of every business schools all over the world. WBS is not an exception from this rule and created many departments under business management especially for focusing on research in every possible area. To provide specializations in teaching and research in higher education business arena, WBS created ten departments and encouraged them to compete and collaborate for Excellency in academics and research. Table 7 list the ten departments, the number of faculty members

and research scholars in each department, the programme they participate, number of scholarly research papers they published during 2016, and finally the departmental research productivity.

Table 7 : Academic departments and research productivity of 2016

S. No.	Department	No. of Standing Faculty Members (F)	No. of Ph.D. Students	Programmes	Research Publications (2016) (N)	Research Productivity 2016 (N/F)
1	Accounting	21	12	B.S., MBA, Ph.D.	15	0.714
2	Legal Studies & Business Ethics	20	04	B.S., MBA, Ph.D.	20	1.00
3	Real Estate	09	04	B.S., MBA, Ph.D.	18	2.00
4	Business Economics & Public Policy	15	29	B.S., MBA, Ph.D.	21	1.40
5	Management	47	24	B.S., MBA, Ph.D.	43	0.915
6	Statistics	21	27	B.S., MBA, Ph.D.	68	3.24
7	Finance	38	28	B.S., MBA, Ph.D.	34	0.895
8	Marketing	27	20	B.S., MBA, Ph.D. Executive Education	42	1.555
9	Health Care	09	23	B.S., MBA, E-MBA, Ph.D. Executive Education	06	0.666
10	Operations, Information, & Decision	30	23	B.S., MBA, Ph.D. Executive Education	36	1.20
		237	190		303	1.28

6. ACHIEVING EXCELLENCE

6.1 Infrastructure

(1) Philadelphia Main Campus

The Wharton campus in Philadelphia is right on Locust Walk, the brick-lined pedestrian thoroughfare at the heart of the University of Pennsylvania. Jon M. Huntsman Hall is the latest addition to the Wharton campus, a network of buildings located along Locust Walk and around the Wharton quad. The Wharton campus builds close interactions across its many centers and is large enough to offer world-class resources. The campus' resources extend from a state-of-the-art fitness center, donated by Wharton alum David Pottruck, to a library system with almost 6 million books and a 269-acre campus with countless educational, recreational, and cultural opportunities. Our many buildings are clustered at the center of the campus and form a community within Penn.

Jon M. Huntsman Hall building is the single largest academic building of WBS on the University of Pennsylvania's campus with 320,000-square-foot area and has 48 flexible, technologically equipped classrooms, four computer labs, 57 group study rooms, four floors of faculty offices, common spaces, and pedestrian walkways. Other notable features include an 8th floor conference space, 300-seat auditorium, student cafés, and study lounges. Another building of WBS named Steinberg Conference Center is home to the Aresty Institute of Executive Education. A learning-living environment, the center includes four amphitheatres, three large classrooms, 12 conference rooms, 103 guest rooms and suites equipped with networked personal computers, aerobic exercise room, executive dining facilities, evening lounge, and case rooms with video and computer technology. The third building called Dietrich Hall, opened in 1952,

was one of the first buildings erected on campus after World War II and the first built exclusively for the Wharton School. In 1983, the adjacent fourth building named Steinberg Hall was added. The center for the School administration, it also houses several academic department offices, classrooms, and conference rooms. The fifth building named Joseph H. Lauder Institute for Management and International Studies contains offices, common spaces, and classrooms used by students in the Wharton/Lauder joint MBA/MA program for international business. The sixth building named Vence hall built in 1972 holds administrative offices, classrooms, and meeting spaces.

(2) Wharton San Francisco Campus

Wharton San Francisco is located in the historic Hills Brothers Plaza. Our Bay Area campus is a hub of academic and entrepreneurial activity for Wharton students and alumni in the West Coast. Established in 2001, Wharton San Francisco is part of the Wharton School of the University of Pennsylvania. Initially located in the historic Folgers Building, the Wharton San Francisco campus welcomed its first cohort of students for MBA Executives program. Originally nicknamed Wharton West, the campus soon became known as Wharton San Francisco. Over the next decade, academic programming expanded considerably, and the campus became a hub for entrepreneurial activity and alumni life. In 2011, Wharton San Francisco relocated to a larger space in the Hills Brothers Plaza 37,000 Sq. Feet building in the SoMa district to accommodate its growing needs with amphitheater-style classrooms incorporate HD video conferencing and immersive communications capabilities for broadcasts of networking events, speaker series, and classes, Lobby and Dining Hall areas, 17 group study rooms can accommodate up to six people, and number of faculty spaces. The campus conducts executive MBA programmes and semester out model to MBA students.

(3) Wharton China Centre, Beijing

Started in March 2015, Wharton China Centre, Beijing. The Penn Wharton China Center is located in the Cesar Pelli-designed World Financial Center at the heart of Beijing's Central Business District. Easily accessible by public transportation and with ample parking, the state-of-the-art 23,000-square foot facility includes a reception area, an open plaza, meeting rooms, group presentation spaces, and additional meeting and work spaces for scholars and staff. 12 centres of University of Pennsylvania are functioning in this centre.

(4) Wharton-INSEAD Alliance

Through a mutual alliance with INSEAD France, Wharton provides collaborative facilities resource exchange in three more campuses at Fontainebleau; Cedex FRANCE, Singapore, and United Arab Emirates to have access to Europe, Asia, and Mid-east countries.

6.2 Admission Process

In 2016-2017, Wharton Business School had total 4,993 Students spread across 4 Degree Programs with 2,559 Undergraduate students, 1,775 MBA Students, 445 EMBA Students, and 214 Doctoral Students. In addition, approximately 9,200 people participated in Wharton's Executive Education programmes from all around the world.

(1) Undergraduate Admission :

Undergraduate Admissions officers evaluate the following factors:

- High school academic performance
- Standardized testing
- Recommendations
- Non-scholastic achievements
- Leadership
- Personal maturity

The undergraduate admissions committee looks for individuals who will be future leaders. There are no fixed criteria and no cut-offs in terms of grades or test scores. Because such a high percentage of the Wharton applicant pool is qualified for admission, there are ultimately more qualified candidates than spaces in the class. Accepted candidates are those who present the most compelling cases and distinguish themselves from other applicants. International students comprise about 22% of the Wharton undergraduate population.

(2) Postgraduate Admission

The Wharton MBA program has three application rounds per year with three key dates for each round: Application Deadline, Interviews, and Decision Dates. The MBA/MA Lauder and JD/MBA program has two key dates: Application Deadline and Decision Dates. Read below for information on application requirements and assistance. The minimum requirements to apply to the MBA program include:

- Completion of an undergraduate program in an accredited U.S. college or its equivalent in another country. The average GPA of 3.6 in 4.0 scale is accepted last year
- Results of the Graduate Management Admissions Test (GMAT) or the Graduate Record Examination (GRE).
- Submission of the Wharton application.
- Results of an English Language Test (TOEFL or PTE) unless you have earned an undergraduate or Master's degree in an English-speaking country or from an institution in which English is the language of instruction. To waive an English language test, you must include a letter requesting the waiver in your application AND documentation that your education was in English.

WBS typically receives 6,000 to 7,000 applications in a given year. Approximately 75% to 80% of all applicants are qualified for admission. Of these, WBS generally admits about 1,000 candidates for a class of about 840 students. The schools median GMAT score for recent entering classes is approximately 720, but the range of scores of admitted students is very broad between 530 to 790. A high score does not guarantee anyone's acceptance, nor does a low score preclude it. There is no minimum score required. The average TOEFL score for those students in the Class of 2019 was 110. Applicants who earned a baccalaureate or advanced degree at an institution in which the medium of instruction was English, or who have had considerable exposure to the language, may waive the test. A waiver request may be submitted as part of the application. First-time applicant and re-applicants (those who applied to begin the program are required to complete both essays along with the application fee of \$265 and two letters of recommendation along with one-page resume on functional job skills, breadth, and depth of experience, demonstrated leadership and management skills, and applicants potential for growth.

(3) Ph.D. Admission

The Wharton Doctoral Programs requires all applicants to take and provide scores for either the Graduate Management Admissions Test (GMAT) or the Graduate Record Examination (GRE). Test requirements vary by program. Applicants whose native language is not English must also take the TOEFL.. A non-refundable application fee of \$80 must accompany with the application. Apart from that three letters of recommendations and the Personal Statement essay question are to be submitted online. All selected students will get full fellowship that includes a stipend and covers the cost of tuition and health insurance. There is not a limit on the number of international students who will be accepted into the Doctoral Programs each year. Acceptance is based on academic history, test results, recommendations, and personal statement to choose dedicated contributors to research.

6.3 Faculty Appointment & Motivation

Wharton's 235+ faculty members are leaders in their fields. They lead 20 interdisciplinary research centers, develop new curriculum that reflects the evolving business environment, and practice innovative teaching methods. The school always appoints and maintains best faculty who are the innovators and role models in the education industry through their forward thinking and ability to create innovators.

6.4 Highlighting Notable Alumni Strategy

Identifying notable alumni of different batches of UG, MBA, and PhD holders based on their achievement and contribution as CEO or Founder of Fortune 500 companies, Top position and name in World top Business Schools, or yeomen contribution to the society is a unique strategy of Wharton Business School. Some of the notable alumni of WBS is listed in Table 8 and Some prominent Indian icons studied at Wharton B-School are listed in Table 9.

Table 8 : Notable alumni of Wharton Business school

S. No.	Notable Alumni	Achievement	Course completed at Wharton	Year of completion
1	Laurence Tisch	CEO of CBS from 1986 to 1995	MBA	1943
2	Donald Trump	45 th President of the United States, and founder and CEO of the Trump Organization	B.S. in Economics	1968
3	Edmund T. Pratt, Jr.	CEO of Pfizer Inc. from 1972 to 1991	MBA	1947
4	Yotaro Kobayashi	CEO of Fuji	MBA	1958

		Xerox Co. and the Asia Pacific chair of the Trilateral Commission.		
5	J.D. Power	CEO of J.D. Power & Associates a byword for high quality automobiles.	MBA	1959
6	Robert Crandall	President and chairman of American Airlines	MBA	1960
7	Mortimer Zuckerman,	Owens the New York Daily News and U.S. News & World Report.	MBA	1961
8	John Sculley	Pepsi and Apple.	MBA	1963
9	Edward E. Crutchfield,	CEO of First Union Bank in 1994 and grew its revenue from \$7 billion to \$258 billion in six years.	MBA	1965
10	Lewis E. Platt,	CEO of Hewlett-Packard from 1992 to 1999	MBA	1966
11	Alfred R. Berkeley III	President of NASDAQ from 1996 until 2000	MBA	1968
12	Peter Nicholas	Cofounded Boston Scientific in 1979, growing it into a multi-billion dollar global manufacturer of medical equipment	MBA	1968
13	Harold McGraw III	Expanded Family business McGraw-Hill International into over 35 countries	MBA	1976
14	Laura Lang	CEO of Time, Inc. from 2011 to 2013	MBA	1980
15	Bill DeLaney	CEO of Sysco, in 2009	MBA	1982
16	Ruth Porat	CFO of Morgan Stanley, Named as most powerful woman on Wall Street	MBA	1987
17	Gerard Kleisterlee	CEO of Philips from 2001 to 2010	MBA	1991
18	Alfred C. Liggins III,	CEO of Radio One in 1997	MBA	1995
19	Alex Gorsky	CEO of Johnson	MBA	1996

		& Johnson since 2012		
20	Lewis E. Platt	Chairman and CEO, Boeing	MBA	1966

Table 9 : Some Prominent Indians Studied at Wharton B-School

S. No.	Notable Alumni	Achievement	Course completed	Year of completion
1	Anil Ambani	Chairman, Reliance Group	MBA	1983
2	Aditya Mittal	President and CFO, Mittal Steel Company	BS in Economics	1996
3	Sundar Pichai	CEO, Google	MBA	2004
4	Vivek Kulkarni	Founder and MD, Brickwork Ratings	MBA	1990
5	Ashish Goyal	First visually impaired trader in the world	MBA	2008
6	Rakesh Gangwal	Chairman and CEO, US Airways	MBA	1979
7	Nilesh Gupta	Managing director, Lupin Limited	MBA	2002
8	Vikram Chatwal	Hotelier	MBA	1994
9	Ramchandran Jaikumar	Decision Scientists, Daewoo Professor of Business Administration at the Harvard Business School	Ph.D.	1982
10	Sachin Pilot	Indian Politician	MBA	2002

6.5. Marketing Strategy for Better Customer Connection :

(1) Knowledge@Wharton

A daily call-in business interview program called Knowledge@Wharton broadcasts live programs from The Wharton School's campus. The host Dan Loney interviews the world-renowned Wharton professors, distinguished alumni, and expert guests. The public can listen to Knowledge@Wharton Monday through Friday, 10am-12pm, EST on SiriusXM channel 111.

(2) **Web Information Strategy** : The website of WBS give clear information about its programmes for all its stakeholders. Information pertaining to individuals of any services provided by the school is available on the website. Information about the broad slate of academic programs for every stage from **pre-college** to executive is available with details. For example, the information about academic programmes are available under the headings Undergraduate programmes, MBA programmes, Doctoral programmes, Executive programmes, Global programmes, Interdisciplinary programmes, and Pre-college programmes with separate hyperlinked pages (Table 10).

Table 10 : Number of hyperlink pages from Academic programme page.

S. No.	ACADEMIC PROGRAMS PAGE	NUMBER OF HYPERLINK PAGES
1	UNDERGRADUATE PROGRAMMES	6
2	MBA PROGRAMMES	7
3	DOCTORAL PROGRAMMES	9
4	EXECUTIVE EDUCATION PROGRAMMES	3
5	GLOBAL PROGRAMMES	6
6	INTERDISCIPLINARY PROGRAMMES	9
7	PRE-COLLEGE PROGRAMMES	5

(3) Career Center :

Counsellors are available to Wharton MBA alumni to discuss job search strategies, career planning, career resources, and other related issues. It provides an alumni career service called Wharton MBA Career Management Jobs Board, Through its BlueSteps.com is a premier career management service for senior-level executives. A membership ensures career-long exposure to the world's leading retained executive search firms. Penn and Wharton have partnered with BlueSteps to provide you with a 30% discount on all lifetime BlueSteps memberships. Further, Wharton MBA Career Management provide Wharton alumni with a wide array of valuable resources and information during every stage of the job search, including resume and cover letter assistance, interview guides, research information, and networking opportunities. Alternatively, an MBA alumnus of WBS can upload job openings of their companies in Wharton MBA job board and can advertise positions to 1600+ current Wharton students and thousands of alumni, who subscribe, and the Wharton MBA and Alumni Resume Books.

(4) Wharton Magazine :

WBS digital magazine is a free resource of information to Wharton stakeholders with articles and advice in many areas which include : Careers, Economics, Entrepreneurship, Finance, Health Care, Innovation, International, Leadership, Management, Marketing, Operations, PE/VC, Public Policy, Real Estate, School News, Social Impact, Sports Business, Statistics, Student Life, and Technology. Through web search within the Wharton Magazine page, one can find and read hundreds of articles on a selected category. The Wharton magazine keeps all Wharton stakeholders informed about latest developments in the business industry.

(5) Life-long learning for Wharton Alumni through Joe Talks :

Joe Talks are rapid-fire presentations from star Wharton professors, energetically showcasing the School's thought leadership in business, analytics, innovation, and entrepreneurship organized at different places in USA and other places around the world for its alumni and other registered entrepreneurs.

6.6 Expansion & Internationalization Strategy :

Wharton B School is a pioneer among other top business schools to expand its higher education service by starting the second campus in east cost San Francisco to reach almost all states of the country. Apart from that WBS also expanded its campus to China, the country which has a huge potential of availing quality higher education through its population and accelerated economic development. **Strategic alliances and institutional relationships are central to Wharton's commitment to excellence in the global business arena. Some of the alliances and collaborations are :**

(1) Wharton- INSEAD Alliance :

Further, WBS based on its unique internationalization strategy, signed MOU with INSEAD of France to use its campuses for offering WBS programmes to the entire world. Through the Wharton—INSEAD Alliance joins the resources of two world leaders in management education, creating global access to unparalleled business knowledge for students, faculty, and executives worldwide.

(2) Guanghua School of Management :

Wharton maintains an active relationship with Guanghua. There are currently both undergraduate and MBA student exchange agreements, as well as a joint research initiative dedicated to studying firms and markets in China.

(3) Indian School of Business [ISB] :

As one of the founding associate schools of ISB in 1996, Wharton has had a significant role in the development of ISB. Wharton maintains a joint research initiative, and many Wharton faculty teach as visiting faculty at ISB.

(4) Singapore Management University [SMU] :

Wharton and SMU established a wide-ranging collaborative agreement in 1999, which continues today to encourage students, faculty and staff at both schools to gain a deeper cross-cultural appreciation of business education. Such activities undertaken include curriculum and course design, faculty development and exchange, executive education programs, and an undergraduate student exchange agreement.

(5) Wharton Tanoto Initiative :

The Tanoto Initiative is a multicomponent collaboration between the Wharton School and the Tanoto Foundation to promote studies and research on the Association of Southeastern Asian Nations, with a focus on Indonesia, in addition to the other ASEAN members: Brunei Darusallam, Cambodia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

(6) Penn Collaboration for Wharton :

University Level Collaborations with Tsinghua University and Shanghai Jiao Tong University of China for student exchange for Wharton.

6.7 Alumni Involvement Strategy :

WBS has a large alumni network of about 96,000 Alumni and 77 Alumni Clubs spread across 153 countries. As per WBS data, the continental spread of its alumni are as follows :

- 930 alumni from Africa & Middle East
- 5,660 alumni from Asia
- 380 alumni from Australia & New Zealand
- 1,370 alumni from Caribbean & Latin America
- 4,510 alumni from Europe
- 79,280 alumni from North America

The WBS provides many facilities and services to its alumni as listed Table 11.

Table 11 : WBS facilities and services to its alumni

S. No.	PROGRAMS/SERVICES	FEATURES
1	Career Resources	Through its lifelong Career Centre, it supports counseling and job search facility for advancement in career.
2	Global Forums	Through global activities held in regions around the world, the Forums bring together leaders from business and government along with Wharton faculty and alumni to explore the issues facing global business.
3	Webinars	Conducts webinars for its alumni to interact with WBS faculties, other alumni, and industry & policy experts for updating their knowledge online.
4	Reunions	Provide an opportunities to meet their classmates and batchmates along with their faculty members during weekends in their continents/countries.
5	Alumni Events	Organizes various events across the world for professional development.
6	Executive Education	Information and discount on Executive education for its Alumni.
7	Access to Wharton Magazine	Every Alumni get access to Wharton Monthly Magazine online
8	Access to Knowledge@Wharton	The Knowledge@Wharton is a network of sites offers free access to analysis of current business trends, Interviews with industry leaders and Wharton faculty, Articles based on the most recent business research, Conference overviews, book reviews and links to relevant content, Searchable database of more than 6,300 articles and research abstracts.
9	Financial support to Wharton Fund	Opportunity to donate/gift for the noble cause of Research

7. DEAN AS ROLE MODEL

As per the recent theory on the organizational performance called Theory of Accountability [32-40], the organizational performance towards achieving the Excellency depends on the collective performance of its stakeholders, which intern depends on the personality and the performance of the leader as a role model. In a business school, the focus on academic excellence and research performance excellence depends on the contribution of the Dean as a role model. Table 12 lists the research contributions in the form of published research papers and books and the innovative

decisions made during their previous assignment by the Deans of Wharton Business School. The contributions of three recent Deans (Patrick T. Harker, Thomas S. Robertson, and Geoffrey Garrett) is really considered as worth for growing organization like WBS and created completion, target, and challenge to other faculty members to struggle for Excellency.

Table 12 : Deans of Wharton B-School and their Contribution (taken from Google Scholar search).

S. No.	Name of the Dean	Period	Research Contribution as Role model	Innovative decision Previous Assignment
1	Geoffrey Garrett	2014 – Present	55 Papers 3 Books	Opened Penn Wharton China Center in Beijing, the university's only center outside the United States.
2	Thomas S. Robertson	2007 – 2014	59 Papers 10 Books	Launched Wharton Digital Press, Started MOOCs, with Coursera.
3	Patrick T. Harker	1999 – 2007	200 Papers	Knowledge@Wharton and Wharton School Publishing.
4	Thomas P. Gerrity	1990 – 1999	4 Papers	Re-engineered the MBA & UG programmes
5	Russell E. Palmer	1983 – 1990	4 Papers + 1 Book	Five years plan to improve the quality of curriculum
6	Donald C. Carroll	1972 – 1983	6 Paper	International outreach & Executive education
7	Willis J. Winn	1958 – 1972	6 Papers	Focus on Research
8	C. Arthur Kulp,	1955 – 1957	7 Papers	Social Insurance & Social security System concept.
9	C. Canby Balderston	1942 – 1954	34 Papers	Construction of first WBS building Dietrich Hall
10	Alfred H. Williams	1939 – 1941	-	Improved the curriculum
11	Joseph H. Willits	1933 - 1939	20 Papers	Focus on Economic Scholarly research
12	Emory R. Johnson	1919 - 1933	33 Papers	MBA as an Autonomous program, First research centre in WBS.
13	William C. McClellan	1916 - 1919	-	Worked closely with University trustees to raise the stature of the School within the University.
14	Roswell C. McCrea	1912 - 1916	33 papers	Collaboration with the City of Philadelphia's government administrators for faculty consultancy.

8. COMPARISON WITH OTHER TOP BUSINESS SCHOOLS

The competitiveness developed by Wharton Business School due to its Quest for Excellency through its innovative strategies of identifying and encashing opportunities in terms of providing quality to UG, PG, and Research based courses resulted in attracting considerable number of students and during the academic year 2016-17, WBS had 4,993 Students spread across 4 Degree Programs with 2,559 Undergraduates, 1,775 MBA students, 445 EMBA Students, 214 Doctoral Students, and approximately 9,200 people participated in Wharton's Executive Education program. In this section, we have compared the results of the strategies followed by WBS along with other top business schools in USA in terms of offering various courses, admission for MBA programme, the faculty members and research scholars in the campus, and research performance based comparison like number of papers published during last year, total number of papers published, download per author, download per paper, and total citation per paper. Comparison is also made on their internationalization strategy, and executive programs based performance based on available web data.

8.1 Courses based Comparison :

Table 13 depicts the various courses offered by seven top rated business schools in USA. WBS offers a maximum number of UG programmes by offering five BS/BA programmes overtaking others in this segment. Similarly, WBS offers six varieties of MBA programmes like regular MBA, Executive MBA, Dual degree MBA, Weekend MBA, Evening MBA, and EMBA surpassing other competitors and also offers a considerably good number of areas in its Ph.D. course. The uniqueness of WBS here is of offering a wide variety of courses for the various niche of aspirants.

Table 13 : Course based comparison for the academic year 2017-18

S. No.	B-School	No. of UG Programmes	No. of P.G. Programmes	No. of Research Programmes
1	Wharton B-School	05 BS/BA	06 MBA	09 Ph.D.
2	Harvard B-School	0	01 MBA	08 Ph.D/DBA
3	Stanford Graduate B-School	0	01 MBA 01 MS	07 Ph.D.
4	Booth B-School	0	04 MBA	10 Ph.D.
5	Columbia B-School	0	02 MBA 03 MS	05 Ph.D.
6	Stern B-School	02 BS	06 MBA 04 MS	08 Ph.D.
7	Sloan B-School	04 BS	01 MBA 05 MS	09 Ph.D.

8.2 Admission Based Comparison

Table 14 depicts the comparison information related to daytime MBA course admission of top business schools. The number of applications received for MBA regular program, the number of students enrolled, and the range of GMAT score accepted for admission in these Business Schools show that WBS provides an opportunity to many aspirants of wider background.

Table 14 : Admission related comparison of MBA course for the year 2017-19 batch

S. No.	B-SCHOOL	NO. OF MBA APPLICATIONS RECEIVED	NO. OF STUDENTS ENROLLED	RANGE OF GMAT SCORE ACCEPTED
1	WHARTON B-SCHOOL	6,692	863	530-790
2	HARVARD B-SCHOOL	10,351	928	580-790
3	STANFORD GRADUATE B-SCHOOL	8,173	418	-
4	BOOTH B-SCHOOL	-	582	620-790
5	COLUMBIA B-SCHOOL	6,188	753	530-790
6	STERN B-SCHOOL	3,927	399	580-780
7	SLOAN B-SCHOOL	-	404	690-760

8.3 Faculty Based Comparison :

Qualified faculty members who can create Academic Excellency by adopting the institutional model in teaching-learning methodologies are essential in a pre-defined faculty-student ratio. The number of full-time faculty members and visiting faculties/adjunct/emeritus faculties decides institutional credibility and commitment towards imparting quality education. The number of full time research scholars engaged in research based on institutional fellowship also decides the institutional focus and commitment to research based new knowledge creation. While comparing the total number of faculty members as well as the total number of research scholars, once again, WBS stays top confirming its quest and commitment towards Excellency (Table 15).

Table 15 : Faculty and research scholar based comparison for the year 2016-17

S. No.	B-School	Full-Time	Visiting/adjunct /Emeritus	Research Scholars
1	Wharton B-School	224	236	214
2	Harvard B-School	281	61	134
3	Stanford Graduate B-School	230	70	128
4	Booth B-School	155	69	136
5	Columbia B-School	152	233	-
6	Stern B-School	329	90	116
7	Sloan B-School	242	12	103

8.4 Research Based Comparison :

Another major responsibility of any higher education institution other than academic excellence is achieving excellence in research and publication. Here we have compared the research output of seven world top business schools based on Elsevier’s SSRN ranking data announced during 01st December 2017 and tabulated in Table 15. The data contains the number of research papers published by institutional faculty members during last 12 months, the number of papers downloaded by readers during last 12 months, and the average downloads per paper during last 12 months, the result shows that WBS is ranked first among the number of research papers published compared to all business schools considered in Table 16. The substantial download of such published papers supports the quality and relevance of research results for further continuation of research by others throughout the world.

Table 16 : Papers published during last 12 months as on 01/December 2017 (www.ssrn.com)

S. No.	B-SCHOOL	PAPERS	DOWNLOADS	NEW DOWNLOADS PER PAPER
1	WHARTON B-SCHOOL	269	1,85,897	45
2	HARVARD B-SCHOOL	180	1,88,268	69
3	STANFORD GRADUATE B-SCHOOL	131	1,08,524	57
4	BOOTH B-SCHOOL	224	1,84,815	63
5	COLUMBIA B-SCHOOL	195	94,337	30
6	STERN B-SCHOOL	223	2,22,686	43
7	SLOAN B-SCHOOL	160	1,33,492	54

The Table 17 and Table 18 shows the total number of scholarly papers published, downloaded, citations per paper and the number of authors in each B-School, total downloads per author, and the total citation per author respectively. The result also shows the commitment of WBS, being a private business school to contribute towards social research for the progress and development of its focussed areas in the society.

Table 17 : Total Papers published as on 01/December 2017 (www.ssrn.com)

S. No.	B-SCHOOL	PAPERS	DOWNLOADS	DOWNLOADS PER PAPER	TOTAL CITATION PER PAPER
1	WHARTON B-SCHOOL	4,134	18,55,846	448	11
2	HARVARD B-SCHOOL	2,745	23,56,435	858	18
3	STANFORD GRADUATE B-SCHOOL	1,897	9,27,958	489	15
4	BOOTH B-SCHOOL	2,927	19,77,831	676	26
5	COLUMBIA B-SCHOOL	3,166	11,44,482	361	12
6	STERN B-SCHOOL	5,147	21,88,166	425	12
7	SLOAN B-SCHOOL	2,450	14,13,333	577	16

Table 18 : Total number of authors as on 01/December 2017 (www.ssrn.com)

S. No.	B-School	No. of Authors	Downloads Per Author	Downloads per paper	Total Citation per author
1	Wharton B-School	451	4,115	412	99
2	Harvard B-School	365	6,456	516	132
3	Stanford Graduate B-School	181	5,127	600	161
4	Booth B-School	292	6,773	633	258
5	Columbia B-School	290	3,946	325	129

6	Stern B-School	358	6,112	622	174
7	Sloan B-School	272	5,196	491	144

8.5 Executive programme based Comparison :

Apart from regular programmes, Wharton Business School also offers short term education and training to working executives all over the world. Based on available web-data, a comparison is made on a number of executive programmes conducted on various campuses other than online programmes, number of participants and the global locations and is shown in Table 19. The available data shows the substantial contribution in terms of numbers for WBS executive education programme and its global nature.

Table 19 : Participants in Executive Education Programs (2016-17)

S. No.	B-SCHOOL	NO. EXECUTIVE PROGRAMMES	NO. OF PERCIPIENTS	NO. GLOBAL LOCATIONS
1	WHARTON B-SCHOOL	86	9,200	07
2	HARVARD B-SCHOOL	128	-	07
3	STANFORD GRADUATE B-SCHOOL	84	4,139	10
4	BOOTH B-SCHOOL	-	-	05
5	COLUMBIA B-SCHOOL	-	-	01
6	STERN B-SCHOOL	22	-	-
7	SLOAN B-SCHOOL	50	-	01

8.6 Internationalization based Comparison :

As discussed earlier, after globalization, internationalization of higher education institution is essential for sustainability and solid growth. Accordingly, many Universities and institutions have modified their strategy by means of internationalization of their existence. Wharton Business School is first among them by starting an exclusive centre at China and having collaboration with INSEAD of France obtained access to four additional campuses located in Europe and Asia. Table 20 gives an idea of how WBS initiated such internationalization by adding additional campuses for better reachability to the student aspirants spread all over USA and also world over.

Table 20 : Internationalization of Top B-Schools in USA

S. No.	B-School	No of Campuses in USA	No. of International Campuses/Collaborations
1	Wharton B-School	02	1 + 4 (with INSEAD)
2	Harvard B-School	01	0
3	Stanford Graduate B-School	01	0
4	Booth B-School	02	3
5	Columbia B-School	01	0
6	Stern B-School	01	0
7	Sloan B-School	01	0

9. CONCLUSION

Being the first and oldest business school born and sustaining in the USA, Wharton B-School is maintaining its position by providing innovative and quality education to its students and hence maintains academic excellence. By giving equal importance to research innovation, it has maintained its strategy to create new knowledge through starting and supporting the number of research centres and hence maintained excellence in terms of the number of researchers in a B-School and the number of research papers published by a B-School. This achievement motivated us to study systematically the business (academic and research) strategy of Wharton Business School as a Business organization in Education service industry. The paper focused on the business service strategy of the world first & USA first business school which differentiated itself through its innovations and best-practices in higher education. It is also concluded

that through systematic implementation of monopoly strategy, Wharton Business School could overtake and stand out as a role model compared to other top business schools in USA as well as entire world in many areas of higher education innovations and became world topper in achieving organizational quest for Excellency.

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