# Exploring Cooperation and collaboration between India and other members of G20 in Higher Education with special reference to Aligarh Muslim University

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**Abstract**

  *India is one of the important members of G-20, which can be seen from the hosting of G-20 Summit 2023 at Delhi. India is the third largest Higher education hub of the world after US and China with more than $100 billion market value and about 27 percent Gross Enrolment Ratio (GER).But when it is compared with other G-20 members in Higher Education on various parameters, India lacks behind many of the G-20 members. In term of the economic development, India is moving fast towards the leading nations of the world with $3 trillion economy. Many studies show that there is strong relationship between quality higher education and economic development. How India and G-20 members can be benefitted from the quality education and to promote their economic development? What are the chances of cooperation and collaboration in higher education between India and other members of G-20?*

  *Aligarh Muslim University (AMU) is one of the leading centers of higher education if one sees the various national (NIRF) and international rankings (THE). Due to quality education, AMU has helped the nation in creating strong soft power in the Middle East and other nations through quality human resources. Can AMU play an important role in cooperation and collaboration of India in higher education with G-20 members?*

  *The present paper has explored the possibility of cooperation and collaboration between India and other members of G-20 in higher education. How India can take advantage of quality higher education of other G-20 members to strengthen her economic growth and vice versa? How AMU can play an important role in strengthening the cooperation and collaboration in higher education as a leading Center of higher education? This paper is important for the strategists, researchers and policy makers in chalking out the affective role of India in G-20 through the cooperation and collaboration in higher education.*

**Keywords**: G-20; Cooperation and collaboration; Higher Education, Rankings; Quality Education

## INTRODUCTION

Founded in 1999, G20 is a group of the most powerful nations of developed and developing nations of the world. G20 was founded with the aims to meet the economic challenges collectively to save the world from the economic turmoil which costs the nation politically, economically, socially and culturally. With the collective efforts, the G20 has overcome from the many economic crises at global level and faced the challenges of global crises like Corona, currency etc. successfully.G20 comprises on Argentina, Australia, Brazil, Canada the Republic of China. France. Germany, India,

Indonesia, Japan, the republic of Korea, Mexico, the Russian Federation, Saudi Arabia, South Africa, Turkiye, UK,USA and European Union.

G20 in its first summit in Washington, USA, in 2008 formulated three main objective of the group. These were "(i) Restoring global growth, (ii) Strengthening the international financial system and (iii) Reforming international financial institutions."[1]

With the passage of time more and more objectives and areas of working added in G20 in its annual summits which used to be formulated by the hosting nations with the participating nations.

The power and prospects of the G20 group can be seen from the fact that this group comprising on two-third population of the world which uses to do 75 percent of the world trade and contribute 85 percent in the GDP of the world. [2]

G20 is viewed by the various powerful international organizations in positive way. G7 which contributes 60 percent of GDP to the world, and was considered the most powerful block, surpassed by G20 with 85 percent of the GDP of the world. [3]

The strength of this G20 is that it represents the most powerful democracies of the world. It has capacity to cooperate with each other to tackle the economic crisis. Beside this, economically most of the emerging economies like Brazil, India, China, and South Africa etc. are part of this group.

India is an important member of G20 from the point of view of its respect in the international community, economic development, human resources, soft power, strong IT sector and cooperative nature to handle the international crises. India is playing an important role in achieving the objectives of G20 by helping the members of G20 and other international organizations. The role of India in tackling the financial crises of 2008, 2010 and help in COVID to numerious countries, and helping the nations in repayment of debts by negotiating with the lender organizations and nations, has increased the prestige among the nations of the world.

This year 2023 Presidency has been given to India in recognition of her services to G20 and achievements in economy, technology, human resources etc. India has proved the world leadership on many occasions. As an emerging power, one can compare Indian economic achievements with the other nations of G20, would find India in emerging position. Table-1 shows the comparative economic achievement of India and G20.

**The Table-1 Shows a Comparative Analysis of Economic Power of India and other G20 Members**

| Name of the nation | GDP(Nom) Mil.USD (2023) | GDP(PPP) Mil.USD(2023) | GDP(Nom) Per Capita USD(2023) | GDP(PPP) Per Capita USD(2023) | Trade bil.USD(2022) | HDI | Compound Annual Growth Rate (CAGR) 10 Yrs rate 2012-22 | Share of Global GDP | Share of Global GDP Growth | Population Quality |
|---|---|---|---|---|---|---|---|---|---|---|
| Argentina | 641,102 | 1,274,807 | 13,709 | 27,261 | 170.0 | 0.842 | 0.3 | 0.8 | 0.1 | A |
| Australia | 1707,548 | 1718,097 | 64,964 | 65,366 | 721.4 | 0.951 | 2.2 | 0.9 | 0.6 | A |
| Brazil | 2,081,235 | 4,020,381 | 9673 | 18,686 | 626.4 | 0.754 | 0.4 | 2.5 | 0.4 | A |
| Canada | 2,089,674 | 2,385,124 | 52,722 | 60,177 | 1,179.1 | 0.936 | 1.6 | 1.2 | 0.7 | A |
| China | 19,373,586 | 33,014,998 | 13,721 | 23,382 | 6,309.6 | 0.768 | 6.2 | 18.5 | 31.5 | A |
| France | 2,923,489 | 3,872,729 | 44,408 | 58,828 | 1435.8 | 0.903 | 1.0 | 2.1 | 0.8 | A |
| Germany | 4,308,854 | 5,545,656 | 51,384 | 66,132 | 3226.9 | 0.942 | 1.2 | 2.9 | 1.2 | B |
| India | 3,736,882 | 13,033,443 | 2601 | 9,073 | 1176.8 | 0.633 | 5.5 | 9.3 | 14.7 | C |
| Indonesia | 1,391,778 | 4,398,729 | 5,017 | 15,855 | 529.4 | 0.705 | 4.2 | 2.8 | 3.6 | B |
| Italy | 2,169,745 | 3,195,548 | 36,812 | 54,216 | 1346.4 | 0.895 | 0.3 | 1.9 | 0.2 | A |
| Japan | 4,409,738 | 6,456,527 | 35,385 | 51,809 | 1644.2 | 0.925 | 0.6 | 3.3 | 0.8 | A |
| Mexico | 1,663,164 | 3,125,902 | 12,674 | 23,820 | 1204.5 | 0.758 | 1.3 | 2.0 | 0.9 | A |
| The Republic of Korea | 1,721,909 | 2,924,038 | 33,393 | 56,706 | 1415 | 0.925 | 2.6 | 1.7 | 1.5 | A |
| Russia | 2,062,649 | 4,988,829 | 14,404 | 34,837 | 772.3 | 0.822 | 0.8 | 3.2 | 0.8 | A |
| Saudi Arabia | 1,061,902 | 2,300,96 | 29,922 | 64,836 | 598.8 | 0.875 | 2.2 | 1.3 | 0.7 | A |
| South Africa | 3,99,015 | 990,030 | 6,485 | 16,091 | 259.1 | 0.713 | 1.8 | 0.7 | 0.4 | C |
| Türkiye | 1,029,303 | 3,572,551 | 11,932 | 41,412 | 617.9 | 0.838 | 5.3 | 2.2 | 3.3 | A |
| UK | 3,158,938 | 3,846,931 | 46,371 | 56,471 | 1353.3 | 0.929 | 1.5 | 2.0 | 1.0 | A |
| USA | 26,854,599 | 26,854,599 | 80,035 | 80,035 | 5441.0 | 0.921 | 2.1 | 13.5 | 9.7 | A |
| European Union | 17,818,782 | 25,399,093 | 39,939 | 56,929 | 5858.4 | 0.900 | | | | |

Sources: WTO, IMF, UNDP, World Economics

The Table-1 shows that on economic indicators India is an emerging economy and can lead the table in terms of GDP if the performance is continuously on rise. What the astonishing fact is that among all the nations of G20, India performance in terms of quality population is dismal with Indonesia and South Africa.

In the last few years the development of Digital Economy (DE) and transforming of the economy on online has created problems for those countries which lacking quality population. India being the leading nation needs massive transformation of economy online. For better management of the economy, a toolkit has been developed for measuring the digital economy. In this toolkit "more than 30 key existing indicators and methodologies to monitor and assess the size and penetration of the digital in the economy have been organized in four themes according to their main purpose of measurement: 1.Infrastructure, 2.Empowering Society, 3. Innovation and technology adoption and 4.Jobs and Growth."[4] On many indicators for digital economy, India is lagging behind due to lack of quality population which comes from quality education particularly higher education.

The future of the global world is attached with the Sustainable Development for which international community has to make plan to achieve the 17 SDGs by 2030. [5] Most of G20 nations are world developed and developing economies and shaping and transforming their economies according to the need of SDGs. India is important for the success of SDGs and SDGs for India. In the words of Prime Minister Modi (2015) "Sustainable development of one-sixth of humanity will be of great consequence to the world and our beautiful planet. It will be a world of fewer challenges and greater hope; and, more confident of its success". [6]

Many studies show that there is strong relationship between economic development and quality population which comes from quality education, employment opportunities, better skills, health etc. May nations in Table-1, are small in term of resources yet performing better on every front due to quality population and education.

The present paper has taken one important constitute of Quality population- the quality education at higher education which comes from quality institutions of

higher learning which promotes research, innovation, development, invention etc. In the light of this argument the paper has explored that how India can be benefitted from the quality higher education of other members of G20 through cooperation and collaboration.

Aligarh Muslim University (AMU) is one of the premier institutions of higher education in India. This university was established in 1920 for the modern education. [7] From its inception till date this university has played very important role in achieving national goals in various areas of higher education and created soft power for India in the Islamic world particularly in the Middle East. The success of AMU can be seen from the facts that India's quest for oil from the Arab world successfully met with the support of the human resources produced by this University.

In the context of G20 how AMU can play an important role in cooperation and collaboration between India and G20 in realizing the goal of quality population through the quality higher education. AMU has vast experience in developing the human resources and is a leading institution of higher education.

## REVIEW OF THE LITERATURE

In the light of the available literature on the cooperation of India and G20 in terms of quality higher education the available literature is less in number. The researchers has gone through the topic by scanning the newspapers, journals, G20 agenda, compendium of conferences and seminars, executive summary of the Summit, Summits reports ,group debate and discussion on the agenda of the concerned ministers. The researcher has found the following write up for the literature review for the present paper.

- The research article of Mahida, R.G and Chauhan, S.P. (2023), "A Study on Presidency of the G20 in India: SWOC Analysis" [8] is about the G20 presidency of India. The author has analyzed "strengths, weaknesses, opportunities and challenges (SWOC) in the context of India in the G20 summit". The study has used the secondary data for the study. The researchers have reached on the conclusion that by getting G20 presidency, India has got an opportunity to be world leader in economy and can enhance her soft power globally.

- D'Souza, R. Preeti, S.J. and John, L. edited Global policy Journal "G20 in 2023 Priorities for India's Presidency",(2022) [9] is about the presidency of India of G20 and how this presidency is going to put India into a strong position in multilateral forums and how it is going to give India an opportunity to set the agenda for future to this G20. The editors have given much importance to G20 as a multilateral forum after the COVID and failure of Russian- Ukraine war. The result would be that "India can utilise its G20 presidency as an opportunity to rethink global governance processes and establish parity in international negotiations." Further the editors highlight that G20 has provided an opportunity to India to present her priorities before the world which are "inclusive, equitable and sustainable growth; LiFE (lifestyle for environment); women's empowerment; digital public infrastructure and tech enabled development in health, agriculture, education, commerce, skill mapping, and culture and tourism; climate financing; circular economy; global food security; energy security; green hydrogen; disaster risk reduction and resilience; developmental cooperation; fight against economic crimes; and multilateral reforms".

- Mc Bride, J. Siripurapu, A. and Berman, N. (2022) article " What Does the G20 Do? " [10] explore G20 from various angles. From the point of view of agenda the authors are in opinion that G20 has expanded its agenda from macroeconomic policy to other issues important for the world e.g. climate change. In their words "The G20 initially focused largely on broad macroeconomic policy, but it has expanded its ambit. The 2018 summit in Argentina focused on fair and sustainable development, while the previous summit in Germany drilled down on issues including corruption, money laundering, and international tax havens." Further the researchers state that "economic and financial coordination remains the centerpiece of each summit's agenda, but issues such as the future of work, terrorism, and global health are recurring focuses as well."

- Jann Lay (2017) article "The G20 under Argentina's Presidency: Time to Deliver on the Hamburg Promises "[11] analysis G-20 presidency of Argentina. In this G20 presidency of Argentina the move towards education as a priority for the members of G20 was adopted and as a result the first Education Working Groups (EdWG) was constituted to see the education as an important agenda. Among the three priorities of G20 presidency of Argentina, one was the education.

In India's G20 presidency much emphasis has been given on Education. With four Education Working Groups, first meet was in Chennai (Feb2023) [12], second meet was in Amritsar (March 2023) [13], third meet was in Bhubaneswar (April 2023) [14] and Fourth was in Pune (June 2023)[15] followed by the G20 Education Ministers' Meeting (EMM) in Pune [16] have brought the following agenda for education for G20 under Presidency of India.

These are education is critical for empowerment, equitable, inclusive and training to all, education for technical and vocational skills and digital transformation, women empowerment, global empowerment and achieving the SDGs.[17]

The researcher could not find the literature related to the topic of the present paper. AMU is participating on the large scale to celebrate the G20 Presidency of India by organizing symposium, lecture and events but in term of literature to show the role of AMU in G20 has been discussed less in literature.

The rationale behind this paper after literature is to explore the cooperation and collaboration of India with G20 and role of AMU in it.

**Objectives of the Research**

There are following objectives of the study:

I) To find out the status of higher education in India and in G20
II) To find out the status of Economy of India and G20
III) To explore the areas of cooperation and collaboration between India and G20
IV) To explore the role of AMU in cooperation and collaboration between India and G20 in higher education

**Research Question**

In the light of the above objectives, following research questions have been set to find answer by exploring the data, documents and evidences.

Q1.What is the status of Higher education in India and other members of G20?

Q2.What is the status of Economy of India and G20?

Q3. What are the areas in higher education for cooperation and collaboration between Indian and G20?

Q4. How AMU can play an important role in cooperation and collaboration in higher education between India and G20?

## Research Methodology

The present research has qualitative design of research. The research is exploratory in nature as the problems in sight needs deep study. Among the types of exploratory research, the present research is based on types of exploratory research i.e. literature research. The literature research is useful as the enormous quantity of information is derived from the various sources such s news paper, reports. Executive summary, Magazine, journals, academic literature, data from the government publication, research organization, census etc. The researcher has explored the available literature and secondary data to find the answer of the research questions related to cooperation and collaboration between India and G20 in higher education with special reference to Aligarh Muslim University.

## Exploring the Research Questions

This is important to know the present status of Higher education in G20 countries for having better understanding for cooperation and collaboration. In G20 there are both developed and developing countries having higher status and lower status in attainment of higher education. The Table-3 shows the comparative status of India and G20 on various indicators of higher education.

**The Table-2 shows the comparison in Higher Education between India and G20**

| Name of the Nation | Literacy Ration | Years of Schooling Years | Share of 25-34 olds With a Tertiary degree across OCED and G20 countries | | | Estimated number of universities worldwide as of July 2021 (Statista) | GER of Nation in Higher Education UNESCO (2019) |
|---|---|---|---|---|---|---|---|
| | | | 2000 | 2010 | 2020 | | |
| Argentina | 99 (2018) | 11 | | | | 85 | 95.4(2019) |
| Australia | 99 | 13 | | | | 43 | 115 |
| Brazil | 93.2(2018) | 8 | 2 | 3 | 3 | 1297 | 55.4 |
| Canada | 99 | 14 | 2 | 2 | 2 | 387 | 75.7 |
| China | 96.8(2018) | 8 | 17 | 18 | 29 | 2565 | 53.6 |
| France | 99 | 12 | 3 | 3 | 2 | 617 | 68.3 |
| Germany | 99 | 14 | 3 | 2 | 2 | 459 | 73.5 |
| India | 74.4 (2018) | 7 | 10 | 11 | 12 | 1181 | 28.5 |
| Indonesia | 96(2020) | 9 | 3 | 4 | 6 | 2595 | 36.1(2018) |
| Italy | 99.2(2018) | 11 | | | | 239 | 66.05 |
| Japan | 99 | 13 | 10 | 7 | 4 | 1063 | |
| The Republic of Korea | 98 | 13 | 4 | 4 | 3 | 375 | |
| Mexico | 95.2 (2020) | 09 | 3 | 3 | 3 | 1173 | 42.8 |
| The Russian Federation | 99.7(2018) | 11 | 12 | 11 | 7 | 1058 | 86.4 |
| Saudi Arabia | 97.6 (2018) | 4 | | | | 38 | 70.9 |
| South Africa | 95(2019) | 13 | | | | 61 | 23.8 |
| Türkiye | 97.6(2019) | 9 | 1 | 2 | 2 | 207 Universities | 115.0 |
| UK | 99 | 13 | 3 | 3 | 4 | In 2021–22, there were 285 higher education providers in the UK that returned data to the Higher Education Statistics Agency (HESA).-280(2021) | 65.7 |
| USA | 86 | 14 | 17 | 14 | 11 | 3216 | 87.8 |
| European Union | | | | | | 2,706 ( uniRank database in 2023 there are currently 2,706 officially recognized higher-education institutions in Europe.) | |

Source: OECD, UNESCO, World Bank and National Statistics Websites (Education Indicators in Focus) (http://data.uis.unesco.org/index.aspx?queryid=3726)

The data from Table-3 shows that India is far behind than other G20 nations in terms of literacy ratio and Gross Enrolment Ratio (GER) in higher education. Most of the advanced nations of G20 have achieved universal literacy while India is still on 74.4 percent.

In case of years of schooling Indian average is 7 years just half of the other advanced nations of G20. In terms of share of 25-34 years old with tertiary education, India has performed well over the periods of decades. In terms of building of institutions of higher learning, India has not performed well in relation to the ratio of population which pointed by Knowledge Commission Report (KCR). The quality of higher education is not better in comparison to the many nations of G20. As a result in spite of small population and resources, these nations are ahead in GDP growth and wealth creation than India due to their quality population developed with the quality higher education by quality institutions of higher learning. The quality of higher education of G20 nations can be seen in their performance in international rankings of higher education. Table-4 shows the performances in terms of rankings in international rankings.

**Table-3 India and G20 Nations: A Comparative Analysis in Quality Education through Various International Rankings**

| Name of the Nation | Rank in THE In top 100 | Rank in QS 2022 (in top 100) |
|---|---|---|
| Argentina | 1001-1200(00) NUO San Martin | 69 (1)University of Buenos Aires |
| Australia | 33(06) University of Melbourne | 27 (07) Australian National University |
| Brazil | 201-250(00) University of Sao Paulo | 121(00)University of Sao Paulo |
| Canada | 18(05) University of Toronto | 26(03) University of Toronto |
| China | 16(06)University of Peking | 17(06)Tsinghua University |
| France | 40(03) Paris Sciences et Lettres – PSL Research University Paris | 44(04)PSL Research University |
| Germany | 32(07) LMU Munich | 50(03) Technical University of München |
| India | 301-350(00) Institute of Science | 177 (00) IIT Bombay |
| Indonesia | 801-1000(00) University of Indonesia | 252(00)Gadjah Mada University |
| Italy | 172(00) University of Bologna | 142(00)Polytechnic University of Milan |
| Japan | 35(02) The University of Tokyo | 23(05)The University of Tokyo |
| The Republic of Korea | 54(02) Seoul National University | 36(06)Seoul National University |
| Mexico | 601-800(00) Monterrey Institute of Technology | 105(00)National Autonomous University of Mexico |
| Russia | 158(00) Lomonosov Moscow State University | 78(01)Moscow State University |
| Saudi Arabia | 190(00) King Abdul Aziz University | 109(00) King Abdul Aziz University |
| South Africa | 183(00) University of Cape Town | 226(00) University of Cape Town |
| Türkiye | 401-500(00) Cankaya University | 511(00)Koc University |
| UK | 1 (11) University of Oxford | 02(17) University of Oxford |
| USA | 2(38) California Institute of Technology | 01(28) Massachusetts Institute of Technology, MIT |
| European Union | | |

Sources: THE and QS World University Rankings 2022

The Table-3 shows that Indian institutions of higher education performance are not satisfactory. No university could find place in top hundred positions in two reputed rankings of international standard. By seeing the performance of other members of G20 in international rankings, India needs cooperation and collaboration in higher education to enhance her academic quality, research, skill development, innovation quality population to sustain her economic development in future.

One can also see the economy of higher education between India and G20 to see how India can be benefitted from the cooperation and collaboration. The Table-4 shows the comparison of Economy of higher education.

**Table-4 India and G20 Nations Comparison in Economy of Higher Education**

| Name of the nation | Cost of Higher Education | International Students contribution (2021-22) | Indian Students Abroad in G20 750,365 (2022) |
|---|---|---|---|
| Argentina | $3000 to 27000 PA | | ---------- |
| Australia | AUD 2000-50000PA | 25.5 bill $ | 1,00,009 |
| Brazil | $2,000 - 10,000 PA | | 06 |
| Canada | $21,100-36000 PA | | 1,83,310 |
| China | $2000-1000 PA | | 6,436 |
| France | € 5000-30000 PA | 5.0 bill Europe | 10,003 |
| Germany | €300 per year or INR 28000 per year | 5.0 billion Euro | 34,864 |
| India | $ 5000 to 20000 | | |
| Indonesia | Between $3,000 -$6,100 per year. | | 01 |
| Italy | €400- €3,500 per year | | 5,897 |
| Japan | $7581 per year. | | 1,302 |
| The Republic of Korea | $3000-10,000 | | 1,364 |
| Mexico | US$5,000 per year | | 108 |
| Russia | $ 3000-12000 | | 18,039 |
| Saudi Arabia | $6000-10000 | | 65,800 |
| South Africa | $3000 | | 335 |
| Türkiye | $600-900 | | 193 |
| UK | US$25,339 per year | £41.9 billion | 55,465 |
| USA | $8000-35000 | US$33.8 | 4,65,791 |
| European Union | | | |

Sources: Top Universities, Studies-overseas.com, Master Portals, africanews.com, Study in Russia, Go Overseas, Shiksha.com, Counselor Corporation, upGrade Abroad. https://www.mea.gov.in/Images/CPV/lu3820-1-mar-25-22.pdf

The data shows that before pandemic around 750,000 Indian students were studying abroad spending about $ 24 billion equal to 1% of India's GDP. [18] Between 2017-22 three million students went abroad for higher education. [19]  By 2024 around 1.8 million students would go abroad to spend around $85 billion due to lack of quality education in the country while India attracted about 50 thousand students and mostly from ten nation from Asia and Africa.[20] Keeping the need of the nation the New Education Policy (NEP) has recommended the expansion of quantity and quality of higher education with more emphasis on research and innovation. [21]

**India and G20: Where they can Cooperate and Collaborate**
In the light above evidences, India and G20 has much scope for cooperation and collaboration in higher education beside macroeconomic matters. India is a fast developing economy with huge population. If population is made quality, then the rate of development would be faster and can sustain economic growth for longer period of time.

In the last five years, after Argentina Summit of G20, 2018, much progressed has been notice in the field of education in G20. In 2018, in Argentina, Education Working Group was formed to see the development of education in G20.The policy report states that "the EdWG has drawn the attention of policy makers across the G20 member countries to a range of pressing education issues, generating a respected platform for dialogue and peer learning." [22]

The EdWG has played an important role in the enlarging the areas of cooperation and collaboration by exploring many issues relating to G20 members. The analysis of the functioning of the EdWG of past presidencies finds that "Under past G20 presidencies, Education Working Groups have focused on strengthening educational systems by making them more inclusive, accessible and innovative at all levels, and discussed the need to strengthen linkages between the world of education and the changing world of work." [23]

The analysis of the working of the Education Working Groups of G20, shows that  "EdWG focuses on strengthening learning outcomes and equitable access through

technological tools, digitalization, universal quality education, financing, partnerships for education, and international cooperation. EdWG also collaborates with Employment and other Working Groups to address cross-cutting issues like skill development and school-to work transition." [24]

The Indonesian Presidency in 2015 envisioned the Skills strategy of G20.The G20 Riyadh Summit 2020, which held virtually, emphasized the improving the quality through internationalization of education at all levels and producing global citizen. [25]

The G20 EdWG 2021 further enlarges the issues of the education among G20 countries. The declaration of G20 education ministers states  the commitment of G20 nation on SDGs, quality education, blending teaching and learning, global cooperation and commitments and way forward in cooperation during pandemic. [26]

The Bali Summit 2022 on education gave new impetus to the development of education. In the meeting of education ministers the main agenda were universal quality education, digital economy and partnership in education. [27]

The theme of India G20 Presidency 2023 shows a world of close cooperation like a family. So the educational agenda is in line of the theme "one Earth, one Family, One Future ".  Till know under India G20 presidency, four EdWG meetings and a meeting of the Education Minister have been held in the various parts of India. The priorities areas of discussion of Education Working Group have been finalized and were accepted by Education Minister Meeting are "1.Ensuring Foundational Literacy and Numeracy especially in context of blended learning; 2. Making Tech-enabled learning more inclusive, qualitative and collaborative at every level; 3.Building Capacities, promoting Life-long learning in the context of Future of Work and; 4. Strengthening Research, promoting Innovation through richer collaboration and partnerships "[28]

India has tried her best to utilize her Presidency to strengthen the ties, chalk out the new priorities and give new direction to G20 in every field in general and in education particularly. The Table-5 shows how numerous events related to G20 education working group have been organized.

**Table-5 Key events associated with G20 Education Working Group in 2023**

| S.NO | Event | Date | Place | Participation | Areas of Discussion on Education |
|---|---|---|---|---|---|
| 1 | Seminar on 'Role of Digital Technology in Education' | 31st January 2023 | Research Park, IIT Madras, Chennai | | |
| 2 | 1st Meeting of the G20 EdWG | 1-2nd February 2023 | Chennai, Tamil Nadu | 80 Delegates from 30 countries | "areas for an inclusive, equitable, relevant and quality education and lifelong learning opportunities for all." |
| 3 | Seminar on 'Strengthening Research Collaboration' | 15th March 2023 | Amritsar, Punjab | | |
| 4 | 2nd Meeting of the G20 EdWG | 16-17th March 2023 | Amritsar, Punjab | 28 countries | "Exploring new frontiers by strengthening research prowess, Scaling up research & Edu-Tech led solutions in an inclusive & sustainable way, Research in Emerging and Disruptive Technologies, Industry - 4.0 Research in Sustainable Development Goals. ,Emphasizing research and innovation-led development Strengthening capacities & life-long learning culture, Making Tech-enabled Learning more Inclusive, Qualitative, and Collaborative at every level and A tech-driven change toward empowering students globally' |
| 5 | Seminar on Building Capacities, promoting Life-Long Learning in context of Future of Work | 24th April 2023 | Bhubaneswar, Odisha | | |

| 6 | 3rd Meeting of the G20 EdWG | 25-27th April 2023 | Bhubaneswar, Odisha | 60 delegates from 27 countries | Building Capacities, promoting life-long learning in context of future of work' |
|---|---|---|---|---|---|
| 7 | Seminar on Ensuring Foundational Literacy and Numeracy | 19th June 2023 | Pune, Maharashtra | | |
| 8 | 4th Meeting of the G20 EdWG | 20th-21st June 2023 | Pune, Maharashtra | 80 delegates from 20 countries | "emphasised on 4 priority areas, including, Ensuring foundational literacy and numeracy, especially in the context of blended learning; Making tech-enabled learning more inclusive, qualitative, and collaborative; Building capacities and promoting lifelong learning in the context of the future of work; and Strengthening research and fostering innovation through enhanced collaboration and partnerships. The meetings were an opportunity to collectively agree on actions for accelerating achievement of the SDGs and foster synergies between the G20 nations towards these priority areas. " |
| 9 | Meeting of G20 Education Ministers | 22nd June 2023 | Pune, Maharashtra | 150 delegates and 14 Ministers | • "All G20 members agreed to that education played critical role in human dignity and global empowerment. <br>• need to work together for a resilient, equitable, inclusive, and sustainable future through education. <br>• have access to quality, inclusive and equitable education, and training to all. <br>• education is lifelong learning about academic learning, but also about developing life, technical and vocational skills to make all learners future ready. <br>• Recognized the important role of digital transformations, women-led development, green transition and education for sustainable development SDGs" |

Source: Press Information Bureau, Ministry of Education, Reports of the Meetings, GOI

**In the lights of the four Education Working Group Meetings and outcome of Education Minister Meet, the following areas of cooperation and collaboration have emerged between India and G20 in higher education.**

a) **Academic Collaboration**: G20 can provide platform for the study the issues of higher education of G20 member countries, chalk out programmes and policies, develop common strategies, share experiences of higher education and take initiative in higher education

b) **Digital Economy, Technology and Quality Population** :Taking the issues of Digital Economy and steps to solve it through the production of quality population through providing digital learning

c) **Assessment and Accreditation of the institutions of Higher education:** Foundation of institutions to work for the advancement of Higher education among the members of G20 through assessment and accreditation by mutual recognition and accreditation of each other degrees and institutions

d) **Financing Higher Education:** Creating financial institutions to finance the higher education in the member countries

e) **SDGs and Higher Education :**Global empowerment of Students : Helping each other in achieving the SDGs goals by 2030 through research and development and aligning the courses of the higher education towards this end

f) **Technology and Higher Education :** Providing inclusive, qualitative, and collaborative higher education through technology

g) **Global Empowerment of Students :** G20 can provide a platform for "tech-driven change toward empowering students globally" through faculty and Student Exchange Programme in the institutions of higher education

h) **Research and Development :** G20 members can Strengthen their research and fostering innovation through joint research projects of higher educational institutions and sharing and exchange of knowledge with each others

i) **Skill Development :** India can get help from G20 members in Skill development and align university courses to produce the human resources of Global standard which enhance the chances of employability of Indian students

j) **startup and entrepreneurship :** India and G20 can help their students mobility from higher education to work through startup and entrepreneurship

k) **Cultural Exchange**: India and G20 can cooperate and collaborate by promoting cultural exchange to strengthen the people to people relation which can provide a better opportunity for Global exposure which can play important role for global leadership of India.

## Role of AMU in promoting Cooperation and Collaboration between India and G20

If one sees the cooperation and collaboration of India and G20, there is a scope for the Universities to play an important role in realizing the goals. There are many universities which can realize the goals of the cooperation and collaboration between India and G20 by taking specific areas to work.

AMU can play important role in cooperation and collaboration between G20 and India in higher education. AMU is one of the oldest universities of Indian which completed her 100 years in 2020. As one of the oldest institutions, it has maintained the academic excellence. By seeing the data of 2021-22 there were 21687 students studying in 343 programmes in 117 Departments, 13 Faculties with total expenditure 40920.32 lacs excluding salary. [29] With schools AMU has more than 37327, students, 1,686 teachers and some 5,610 non-teaching staff. [30]

In academic session of 2019-20 there were 615 foreign and 170 NRI students. Among these the number of students from G20 (excluding India) were 71(America-02, Canada 03 and Indonesia 66). [31]

The performance of AMU in national and international rankings is an example of academic excellence. The NAAC rating of AMU is of A+. ( 2022 ) In the national ranking like India Today University rankings it stands on 3rd position ( 2023) [32] .In NIRF ranking it stands on 9th (2023 ) among the universities and over all 19th among 6,405 institutions. In Times Higher Education World (THE) AMU stands between 801-1000 and in THE Asia, the rank is between 201-250, (2022) . In BRICS emerging economy, it stands on between 251-300,(2022). [33] In QS World ranking, AMU stands between1001-1200(2023) and in Asia it ranks between 271-280, (2023) . [34] In ARWU ranking it stands between 801-900 (2023) .[35] AMU performance in NIRF 2023 has been summarized in Table-6.

**Table-6 AMU Performance in NIRF Rankings 2023 at a Glance**

| S.No | Category | Rank |
|------|----------|------|
| 1 | Over All | 19 |
| 2 | Universities | 09 |
| 3 | Research Institutions | 23 |
| 4 | Innovation (10) | NR |
| 5 | Engineering | 32 |
| 6 | Architecture and Planning | 09 |
| 7 | Management | 55 |
| 8 | Pharmacy | NA |
| 9 | Medical | 28 |
| 10 | Dental | 31 |
| 11 | Law | 14 |
| 12 | Agriculture and Allied Services | NR |

Source: NIRF 2023

On the basis of an enlarge 13 indicators used by US News and World Report to rank the global University 2022-23. AMU stands on 787 among the best global universities, 198 among the best Asian global University and 11 in the best global university of India. [36] In subject rankings the performance of AMU is 356 rank in Biology and Biochemistry, 482 in Chemistry, 137 in Mathematics, 583 in Physics, 436 in Plant and Animal Science and 154 in polymer science. [37] AMU is also working on the major projects of the government and Industries.

With taking over the presidency in December 2022 from Indonesia, India has taken the responsibilities of G20 to give it direction. From organizing the series of events on various areas from ministerial to delegates' levels, India carried the goals of G20 as a world leader and a responsible member. Till now India has proved that it has praiseworthy experience in the multilateral engagement among the nations.

AMU, as one of the best university is standing with India for a successful presidency. AMU to popularize G20 and show the relevancy of the Presidency of India organized a series of events in AMU campus, in departments and in affiliated institutions. AMU organized lectures, discussion, symposium, seminars, debate, Quiz and conferences. All these events have successfully created an environment of awareness and active citizens which would enhance India stature among the members of G20 in coming days.

The academic excellence of AMU is not only a criteria to claim the responsibility in cooperation and collaboration between India and G20 but also as a leading institution having experience of creating soft power in many regions of the world particularly in the Middle East. If one sees the presence of Alumni in nations of the world one would find AMU has an influence in diplomacy through soft power creation as they are residing in more than 100 nation of the world at various key positions.

**The Area where AMU can play role in Cooperation and Collaboration between India and G20**

By analyzing the strength of AMU and seeing the various areas of cooperation and collaboration between India and G20 in higher education, AMU can play important role in cooperation and collaboration in the following areas:

1) **Academic cooperation and Collaboration**: As a premier institution of higher education AMU can help in the development of Quality education with academic partnership, joint initiative in projects and research exchange among the member states of G20

2) **Quality Population:** AMU can develop the required quality human resources for the digital economy which is going to be more and more important in coming days.

3) **Development of courses for SDGs:** AMU can cooperate and collaborate in the development of courses for the achievements of the Sustainable Development Goals by 2023 which has emerged the point of important for G20

4) **Global Empowerment of Women:** AMU can train the women in various fields of studies for the women of the nations of Middle East. A large number of women scholars from AMU are taking responsibility in many Arab nations particularly in Saudi Arab, UAE, Kuwait etc.

5) **Technology, Teaching and Learning:** AMU can play a role in tech-enabled education in blending teaching and learning. The success of AMU during Pandemic in blending learning can be used for the collaboration with those nations like Indonesia, South Africa etc.

6) **Exchange of Faculty :** AMU has big pool of trained and highly qualified faculty which can be used in imparting training ,learning and teaching through exchange of scholars programme between India and G20

7) **Research and Development:** AMU has suitable infrastructure for research and innovation which can be utilized for the collaboration in research project, knowledge creation and innovation with other G20 members. Some of the few advance facilities of the research are "University Sophisticated Instruments Facility (USIF), Centre of Advanced Research in Electrified Transportation (CARET), European Commission and DST funded Safeguarding Water Resources through Green and Sustainable Technologies. Funding Agency (SWINGS) and Potential and Validation of Sustainable and Advanced Technology for Water and Waste Water Treatment (PAVITR)"[38] AMU has a well reputed IPR cell. "The IPR cell of University, courses on IPR, and about 47 patents during last five years showcases the University's dedication to innovation."

8) **Knowledge Sharing, Training and Innovation:** AMU has internationally recognized faculty, research set up and innovation. The number of the research papers published in national and international journals and citations are enough to show the strength of AMU. AMU can share knowledge, initiate join project and share knowledge in Bio technology, Unani Medicine, Mathematics and science, technology, engineering and mathematics (STEM) studies. AMU has "Inter-disciplinary and multi-disciplinary teaching and research"[39] which can be helpful for international institutional collaboration. "The University has an h-index of 155, published 20,642 papers with a citation of 2,60,340 (Scopus/WoS), and produced 1700 Ph.D.s in the last five years; which is one of the highest in India across all disciplines."

9) **Creating Soft power for India through exchange of students:** AMU can attract the large foreign students with available infrastructure as presently it has foreign students from more than 20 nations. This can be helpful in creating soft power for India in many nations.

10) **Cultural Exchange :** AMU as well reputed university internationally can play an important role in cultural relation among the nation of G20

11) **Joint Research Projects:** AMU has signed MOU with many renowned global universities for enhancement of quality of education.AMU has long experience in "Global collaborations for research and education projects." [40] This experience

can be used in collaboration with the members of G20 at governmental and institutional levels for starting joint courses, research and knowledge sharing for example "The Faculty of Engineering and Technology offers courses on Artificial Intelligence, Robotics, Solar Energy and Application, Renewable Energy and Green Technology, etc. The Faculty of Unani Medicine started courses on holistic and inclusive healing: Cupping (Hijama) therapy, Hirudotherapy, Unani cosmetics, etc. The thrust areas in Ph.D. programs embody immensely relevant intersections." [41]

12) **Role in Global Exchange of Scholars:** The performance of the students of AMU is high as compare to other institutions in many areas and can be used for collaboration in required areas of higher education by granting scholarship and training. As per available data as "a total of around 2149 students qualified various National level examinations including, SRF/JRF/NET/GATE in current assessment period ".[42] These students can be used for strengthening cultural ties under global exchange programme.

## CONCLUSION

For the present research paper, the researcher has gone through the various aspects of G20 and analysis the relevancy of G20 at global level. G20 as group of powerful economies and democracies of the world would play very important role in guiding the policies of national and international organizations. With its strong economic base, G20 is moving fast towards stability and productivity. As the economy is moving towards total digitalization, there is need for quality population which can come from quality education particularly in higher education. The present paper has explored the possibility of cooperation and collaboration in higher education between India and G20 and how AMU can play a role in it. On the basis of exploring the facts the researcher has reached on the conclusion that there is big scope of cooperation and collaboration between India and G20 and India can be benefitted more from this. The various aspects of AMU as a primer institution of higher education have been studied and found that as an institution of higher education AMU can play important role in cooperation and collaboration in academic advancement, research and innovation, cultural relation, joint projects, skill development, assessment and accreditation, achievement of SDGs, startup and entrepreneurship etc.

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