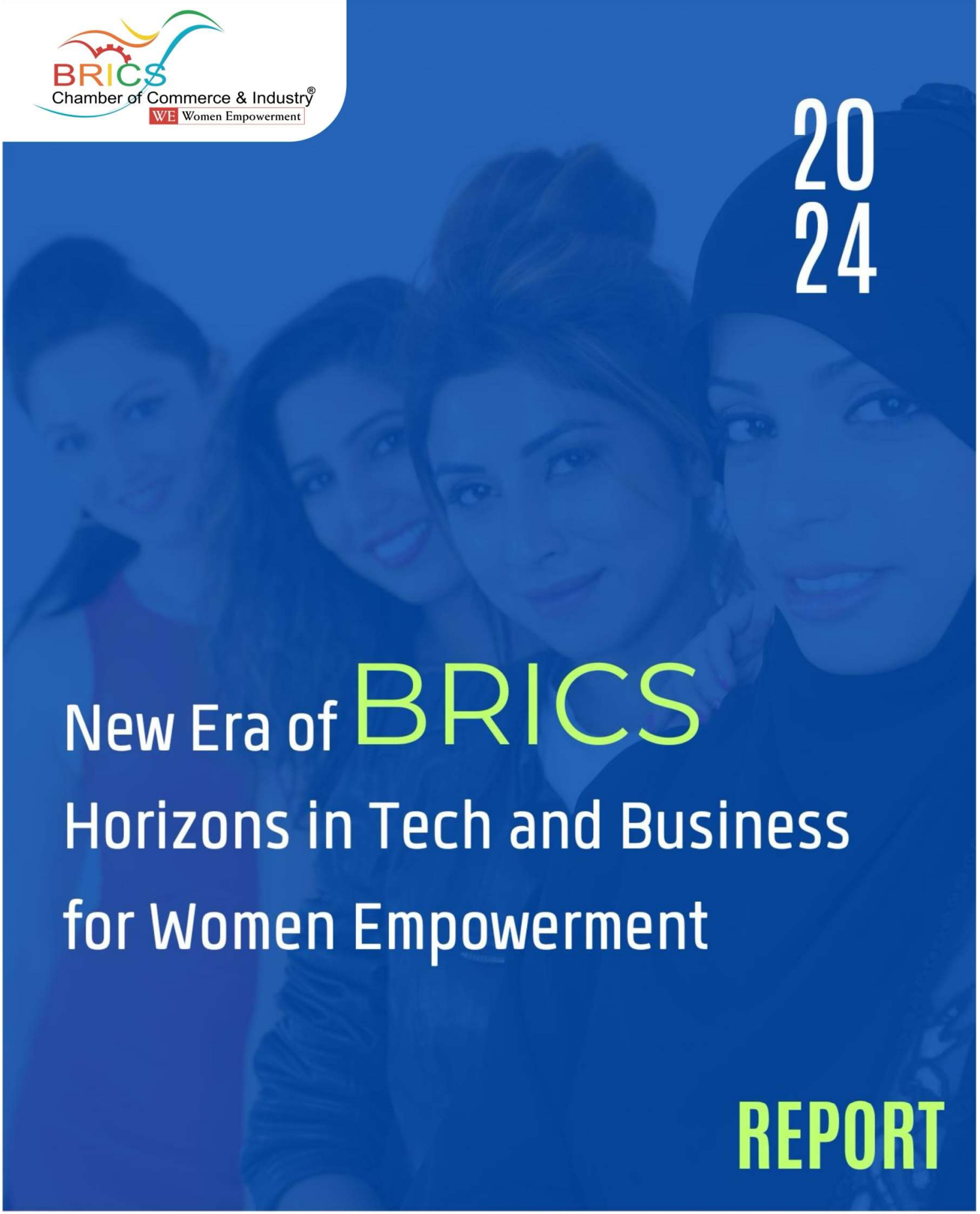
BRICS Chamber of Commerce & Industry®
WE Women Empowerment

2024



New Era of BRICS
Horizons in Tech and Business for Women Empowerment

REPORT

she at work

Knowledge Partners

techarc

BRICS CCI

The BRICS Chamber of Commerce and Industry (BRICS CCI) was founded in 2012 with the efforts of eminent professionals, entrepreneurs, industrialists, and bureaucrats, from BRICS and beyond having its headquarters in New Delhi, India and country offices in Brazil, Russia, China, and South Africa.

In the nearly decade-old journey of the Chamber, it has promoted Business Houses for trade and commerce from all BRICS nations and neighbouring countries. The Chamber is empanelled with NITI Aayog (the highest policy-making body of India) and recognized by the United Nations. Our efforts have been recognized by several Union ministers of the Government of India and Governments of BRICS nations.

BRICS CCI WE, the Women Empowerment Vertical of BRICS CCI is endeavouring to build a credible repository of working professionals, entrepreneurs, business partners across different geographies and industry verticals and promoting business interactions among members by organizing regular events platforms and other forms of interactions. It also facilitates mentoring/training programs for women professionals.

Out of the estimated 3.8 billion women world population, over 2 billion live in BRICS countries. The world will never realise women empowerment in real essence without empowering the women of BRICS nations.

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Executive Summary

The BRICS CCI WE 2024 report attempts to provide an overview of the technology and entrepreneurship landscape for women across BRICS countries. It highlights progress as well as persistent challenges that need to be addressed.

Women empowerment is critical for nations to achieve sustainable development goals. Technology and business offer important avenues for women's empowerment and promoting diversity.

In 2023, BRICS expanded with new members, becoming more diverse and representing over 47% of the world's population and 36% of GDP.

BRICS shows commitment to gender equality initiatives, recognizing the importance of women's technological empowerment and entrepreneurship. Digital inclusivity can be a gamechanger.

Over half of Brazil's population is women. 30% of businesses are women-led, but they have less access to financing. Only 9.8% of tech startups are women-founded.

Women's participation in tech roles is increasing, now 60%. Most organizations value diversity.

40% of researchers are women in Russia. Women comprise 55% of business owners, but only get 4% of venture capital funding.

In India women were key in India's Mangalyaan mission. 36% of IT professionals are women but only 26% are in corporate leadership roles. Women get only 0.3% of start-up funding.

Women in China account for 45% of science workforce. But their labour participation rate fell to 61.6% as they struggle to balance work and family.

The South African women hold only 19% of jobs at top tech companies. Only 23% of IT roles are filled by women. 34% of SMEs are women-led.

In Iran 70% of science and engineering students are women. Women are managing businesses in male-dominated fields.

Egypt is making efforts to integrate women, but gaps persist. Only 30-35% of STEM students are female. Women's ICT employment grew from 1% to 2.3%.

In Ethiopia policy recognises the need to increase women in tech. However significant under-representation persists. Women face challenges to entrepreneurship.

Recent reforms in Saudi Arabia have transformed women's lives. Women are driving change in AI and metaverse. Female digital entrepreneurs increased to 40%.

In UAE 66% of the public sector workforce is women. Women were 34% of the Mars mission team. 25,000 women entrepreneurs in 2021. But leadership gaps persist.

Collective efforts are needed from all stakeholders to address persistent gender gaps and barriers, bringing true inclusion and equality.

Overview

Women empowerment is pivotal in the economic and social growth of nations and is an essential part of achieving the UN driven Sustainable Development Goals (SDGs). Technology and business are important domains that boost women empowerment and welfare in these competitive times and promote diversity and inclusion, imperative for a bright future of any nation.

Women continue to be under-represented in the tech field across the globe. In the technology industry, which has been historically male-dominated, women hold only 28% of leadership roles overall. (Global Leadership Forecast 2023, DDI, 2023)[1]. The biggest of tech giants including Microsoft, Google, Facebook, Amazon among others, have close to (only) 34% of women representation in their workforce. In India, women were the torch bearers of the world renowned 'Mangalyaan Mission', touching new frontiers in building the tech ecosystem in the nation. One in every four GAFAM (Google, Apple, Facebook, Amazon, and Microsoft) is a female. Bearing the fact that the first coder was a woman, the number of females studying in or joining this field is still wanting. Studies have indicated that women make up for 35% of the tech workforce in India (2020) with very less representation in leadership positions and senior management levels - which is disappointing. Despite the technological revolution and disruption, women workforce in tech domain still lacks adequate representation, globally and in India.

In the field of entrepreneurship also, India has become a hub for entrepreneurship and according to Global Entrepreneurship Monitor (GEM) 2020/2021 report[2], the total entrepreneurial activity (TEA) in India is at 14.4%, out of which women is at 12.3%. Though number of women entrepreneurs is increasing globally and in India, obstacles still remain, and men still outnumber women 3-1 in business ownership (World Bank). The vast parity in the gender roles and diversity is because of a host of factors: familial responsibility, society and culture, lack of financial access and mentorship, legalities, lack of entrepreneurial and technology ecosystem and lately even the COVID-19 pandemic.

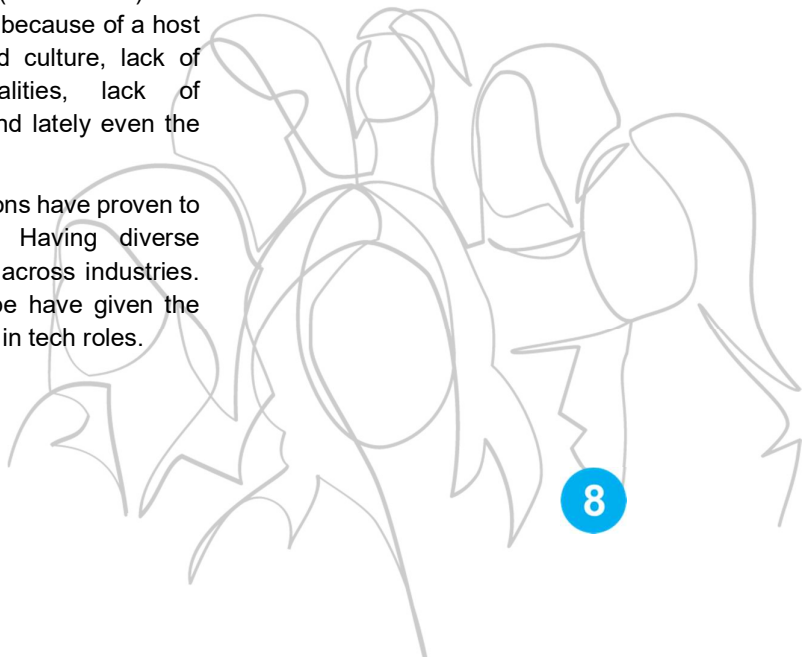
Gender diversity at workplaces and organisations have proven to contribute to a thriving global economy. Having diverse perspectives ensure better decision- making across industries. The thriving digital economy across the globe have given the much-needed impetus to women participation in tech roles.

28%

Leadership role participation of women in global tech industry

3:1

Men outnumber women in business ownership ratio.



[1] https://www.ddiworld.com/global-leadership-forecast-2023
[2] https://www.gemconsortium.org/file/open?fileId=51138

BRICS Landscape

In 2023, BRICS saw a historic membership expansion reinforcing the spirit of unity and development among BRICS countries apart from becoming more geographically diverse. The new BRICS+ format and its guiding principles, procedures and standards make BRICS a very attractive block for dialogue and consensus-building in the developing world. BRICS now represents about 47.3% of the world population with a global Gross Domestic Product (GDP) by PPP of 36.4%, apart from more than 18% of the global trade.

47.3%

BRICS+ is now close to half of the world population.

On the socio-economic front, BRICS+ shows commitment to adopt ground-breaking initiatives in gender equality. It is important to understand the BRICS landscape in the context of women technological empowerment and entrepreneurship knowing the demographic impact of the nations. In present times, the influence of technology is undeniable on business enterprises, communication, operations, trade etc. through social media and AI. This accentuates the necessity of embracing digital transformation and cultivating a universal digital proficiency, especially in context of women empowerment. Digital inclusivity will be a gamechanger for women in BRICS - ushering in an era of economic equality.

There is promise that women empowered through the initiatives of BRICS are poised to become a majority voice and will bring new perspectives on gender development in global discussions. Therefore, a snapshot of technology and entrepreneurship landscape of women in the new BRICS is presented below, aimed to bring a glimpse of women's growth and challenges in this magnanimous region.

Country Updates

BRAZIL

Brazil has a tech savvy environment. It is one of the most internet-connected countries on earth with more than 140 million Brazilians having home internet access[3]. The country is also among the world's biggest markets for social media sites like YouTube, Facebook and Twitter (X). The sector shows steep growth with investors pouring more than $1.5 billion into tech companies in 2016. Women make up 52% of the population in Brazil and there is a growing presence of women in the workforce and key leadership positions of various industries. The entrepreneurship universe in Brazil has around 30% businesses led or created by women. Such enterprises are smaller having little access to financing.

52%

Women make more than half of Brazil's population.

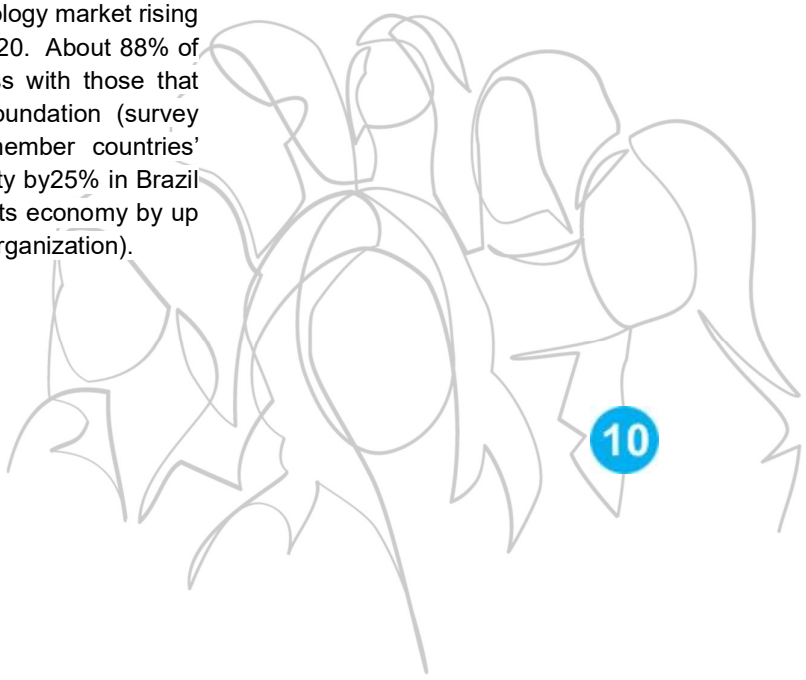
A report from the Global Entrepreneurship Monitor[4], showed that though women accounted for a similar portion of new businesses in as men, women were much less likely to own a well-established business. Fewer women remain entrepreneurs over time though there is a strong female entrepreneurial spirit in Brazil but less financial access.

9.8%

of the innovation led companies were founded by women in Brazil.

Distrito in a report on prevalent gender gap highlighted that only 9.8% of innovation-based companies were founded by women (at least partly) and only 4.7% were solely founded by women. Women start-ups also receive very less venture capital funding and in 2021 it was at 0.04%. This can also be attributed to the fact that there is lack of representation of women in the venture capital industry itself.

The horizons for women in tech are changing fast in the last decade with female participation in the technology market rising to 60%: from 27,000 in 2015 to 44,500 in 2020. About 88% of organizations in Brazil prefer to do business with those that essentially have diversity as a strategic foundation (survey "Sales Scenario in Brazil", 2021). G20 member countries' commitment will help reduce gender inequality by25% in Brazil by the year 2025, which will help to expand its economy by up to BRL 382 billion (ILO, International Labor Organization).



[3] http://www.internetlivestats.com/internet-users/brazil/
[3] https://www.gemconsortium.org/

RUSSIA

Russia has more than 78.8 million women, comprising 54 percent of its total population. The history of women in tech in Russia dates back almost a century. Presently, 40 percent of Russian researchers are women (UNESCO Institute of Statistics)[5] and technology companies such as Yandex, dubbed the Russian Google, have women making up about a third[6] of their employees.

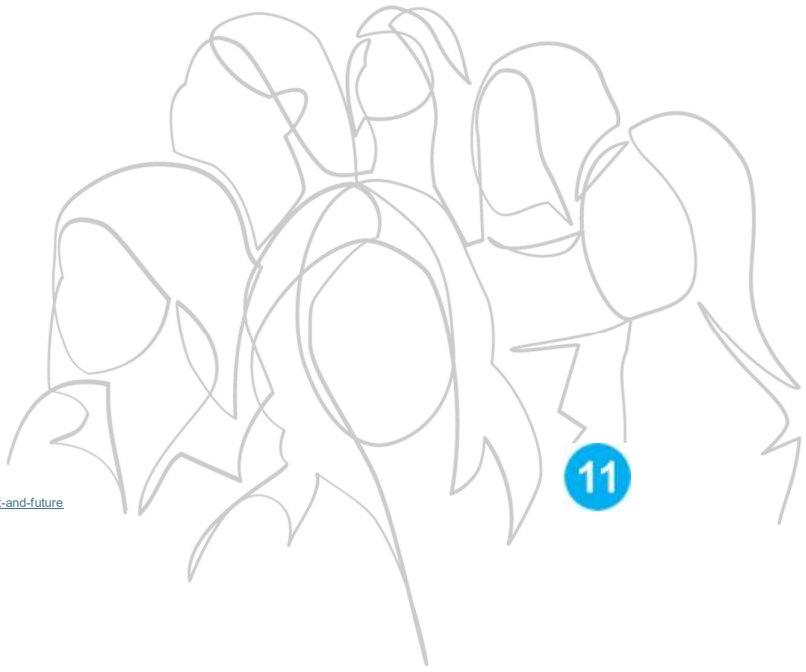
Data shows that 16% IT candidates are women (AmazingHiring) with only 17% of women as programmer (Forbes). During the 2000s, an exponential increase was seen in the number of Russian women, who owned their own businesses. Women achieved greater control over their employment status and gained upward socio-economic mobility.

The percentage of women involved in early-stage entrepreneurship in Russia was 6.6% according to Global Entrepreneurship Monitor (GEM) & is progressing continuously over the years. Overall, some 55% of Russian businesses are run by women. During the pandemic in 2020, investment in female-founded startups grew by 26%. Unfortunately, the share of investment in female-founded startups is still extremely small and constitutes only 4% of the total venture capital investments in Russia. Annual investment received in female startups is 23x less than that received by male startups.

Russia has definitely made huge advances in this domain and nowadays women in Russia have all resources they need to become what they want to become. An aspiring woman entrepreneur can tap mentors, angel investors, support groups, conferences and more, all focused on shepherding her to success.

55%

of the total businesses are run by women in Russia.



[5] http://uis.unesco.org/apps/visualisations/women-in-science/#overview!region=40530
[6] https://yandex.com/company/blog/march-8th-2018-celebrating-women-of-the-past-present-and-future

INDIA

India has a rich pool of talented women who have and continue to contribute enormously towards the growth of science and technology. Indian women are breaking stereotypes in the scientific community, from space to vaccines, and are paving the path for others to follow. Women's involvement in the field of STEM (Science, Technology, Engineering and Mathematics) sector has seen more engagement of female students. One instance is that, during the Atal Innovation Mission's flagship innovation challenge – ATL Marathon 2021 – where 49% of women participated. The provision of the growing government funding, policies, and schemes (such as 'Women Scientists Scheme-A, Women Entrepreneurship Platform-WEP) and implementation of programs have significantly encouraged women's participation in these fields.

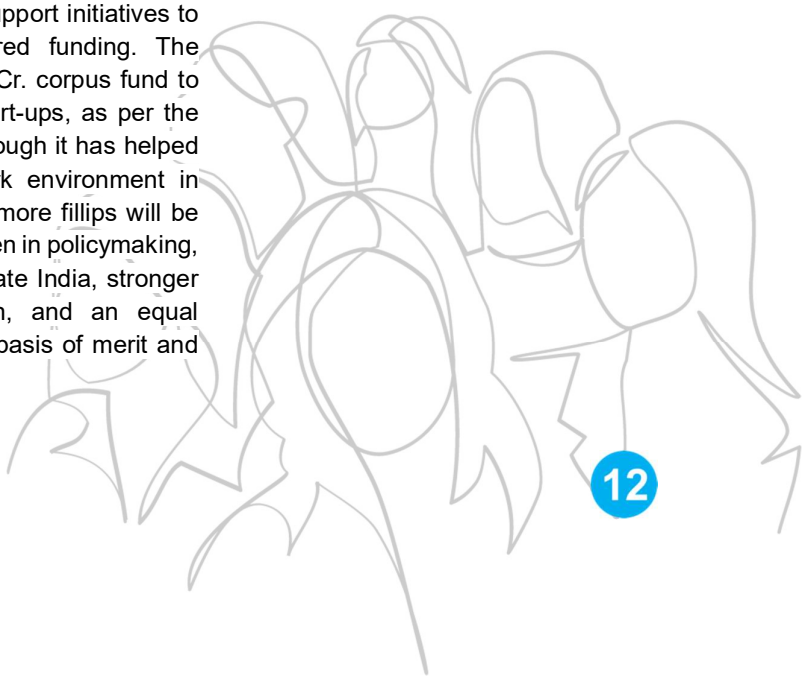
26%

Women representation in IT/ITES roles in corporate India.

India's phenomenal economic growth has led to increased opportunities for women in various sectors, although issues such as gender wage gaps etc, persist. Women have a low 26% representation in IT and ITES roles in corporate India, compared to 31% representation in non-technical roles. The Indian corporate ecosystem saw very less representation (11%) of women in senior leadership roles, 38% in junior level, and 20% in mid-level roles. (Zinnov-Intel India Gender Diversity Benchmark report, 2019).

Presently, women constitute about 36% of the 5 million professionals in the IT industry.

India also faces a funding gap related to gender as women-led startups raised only 0.3% of India's venture capital funding. On the MasterCard Index of Women Entrepreneurs, which gauges how women in business are progressing globally, India ranks 57 out of 65, and had only one in five of the country's businesses led by women. India has launched various support initiatives to help women-led businesses to get required funding. The government had announced 10% of 10,000 Cr. corpus fund to be earmarked exclusively for women led start-ups, as per the Start-up India program launched in 2016. Though it has helped create an unbiased and un-prejudiced work environment in traditionally male dominated sectors like IT, more fillips will be achieved by better acknowledgement of women in policymaking, presence in international platforms of corporate India, stronger leadership and entrepreneurial contribution, and an equal opportunity to compete and win projects on basis of merit and capabilities.



CHINA

Data shows that number of women presidents in the country's listed companies more than tripled to 241 in the decade ending 2021. In contrast, female labour participation rate fell to a low of 61.6% from 63.8%. These contrasting figures highlight the precarious situation that female professionals face in world's second largest economy while they struggle daily to balance their career goals and family obligations. Female STEM workers have played an increasingly important role in scientific research in China making remarkable contributions to that field. The government has made efforts to boost gender equity in the Science, Technology, Engineering, and Mathematics (STEM) research sector, where women are still under-represented. Women make up less than 30% of China's STEM students and account for less than 20% of China's most popular tech positions. Female science workers made up around 45% of the country's total science workforce, contributing to path-breaking endeavours such as manned spaceflight and space exploration, medicine, computer science and other fields.

In the Forbes 2020 World Billionaires List, 234 women that made on the list of 2,095 billionaires, only 67 were 'self-mad', of which almost half hailed from Greater China. The wealth of some of these richest women comes from pursuing riskier opportunities in technologies such as fintech and AI.

China is often regarded as one of the benchmark models for gender equality in women's entrepreneurship. Its government and private sector have proactively boosted women's entrepreneurship[7]. In China, over 70% of start-ups surveyed said they had more than one woman in Chief Executive roles. Despite this positive scenario far more is needed to achieve equality.

To make women count requires more. It is imperative to look beneath the surface and examine what truly constitutes equality even in issues where the numbers look relatively good.

67

Out of these self-made billionaires, half hailed from Greater China.

0.3%

of Women led startups raised VC funding.

SOUTH AFRICA

Technology industry in South Africa has seen significant contributions and leadership roles from its women. Many positive steps are being taken to close the gender gap in industries across the board as even today women remain vastly under-represented in the technology space.

Women hold 19% of tech-related jobs at the top 10 global tech companies currently, compared to men, who hold 81%. Women make up 28% of leadership positions at the global tech giants in South Africa (PwC 2021). The statistics show that there are only 56000[8] women filling ICT roles out of 236,000 roles in the country which comes at just 23%.

In emerging technology roles, such as cloud computing, AI, women have low presence with only 14%[9] participation in professional cloud computing and 28% in data and AI. The fact more concerning perhaps, is the lack of female talent pool filtering in as for every two women who graduate with a degree in STEM[10] or similar in South Africa, there are five males making their way into the industry.

In the field of entrepreneurship, South Africa is among the countries with the highest percentage of women entrepreneurs globally (Master Card Index of Women Entrepreneurs MIWE 2021). According to the same index South Africa moved up two places in Women Business Owner benchmark (ranking 44th), with 21.9% of all businesses owned by women in 2021 and performed relatively well in the 'Women's Advancement Outcome' component (rank 21), which measures women's progress and degree of marginalisation as business leaders, professionals, entrepreneurs, and labour force participants. According to another joint survey by World Bank and Facebook, only 34% of small and medium-sized enterprises are women-led.

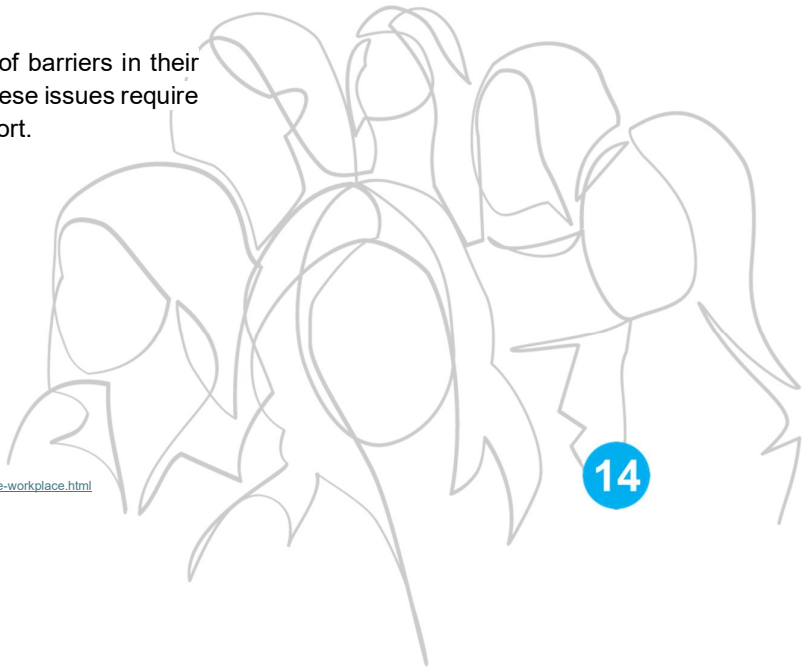
Women entrepreneurs, face a complex web of barriers in their attempts to engage in entrepreneurship. All these issues require attention, advocacy, policy and targeted support.

28%

Leadership position contribution of women in tech giants in South Africa.

28%

Participation of women in emerging tech roles in data / AI.



[9] https://gadget.co.za/why-women-are-key-to-solving-tech-talent-shortage/

[10] https://www.pwc.co.za/en/press-room/changing-gender-perceptions-and-behaviours-in-the-workplace.html

IRAN

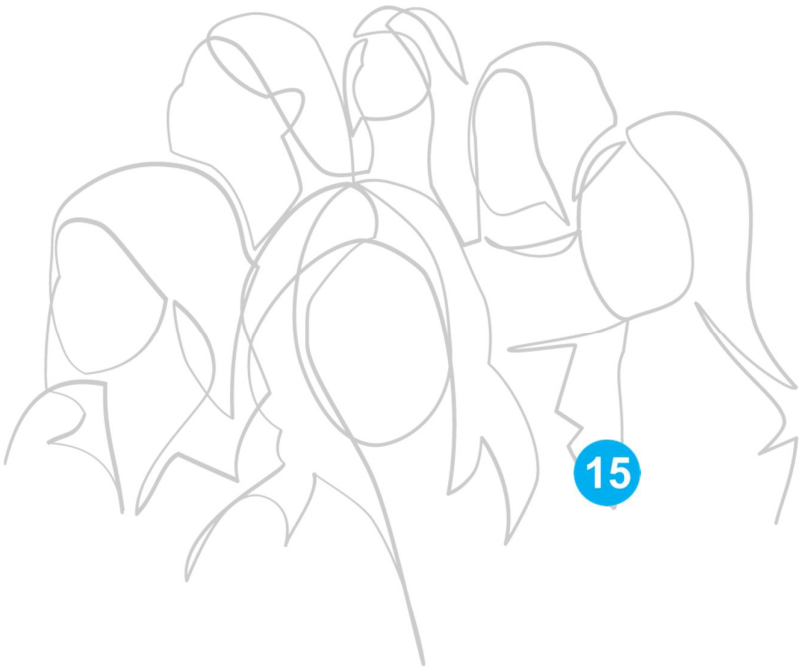
Women are the agents of change in Iran. They have contributed to Iranian academia, politics, and professional domains. The Iranian Constitution preserves the principles of women's empowerment and gender equality.

Over the past three decades, the participation of women in the workforce has increased from 10.5% in 1990 to 16.8% in 2020[11] (World Bank). Although it is still significantly lower than the Western countries but is evidence enough of improvement in Iran. Technology is one of the fastest growing economic sectors in Iran and has seen increased participation from women, where they are not only participating but are also helping to drive innovation and entrepreneurship.

Around 70% of science and engineering students in Iran are women. In Iran women have been managing and owning businesses in male-dominated fields for years. Women entrepreneurs in Iran (similar to the rest of MENA) tend to be better in larger firms compared to small and medium enterprises SMEs. The representation is also growing in some new and growing industries such as electronics and information technology despite facing challenges in accessing some infrastructure services, particularly telecoms and the Internet.

16.8%

Women participation in workforce in Iran.



[11] https://data.worldbank.org/indicator/SL.TLF.TOTL.FE.ZS?

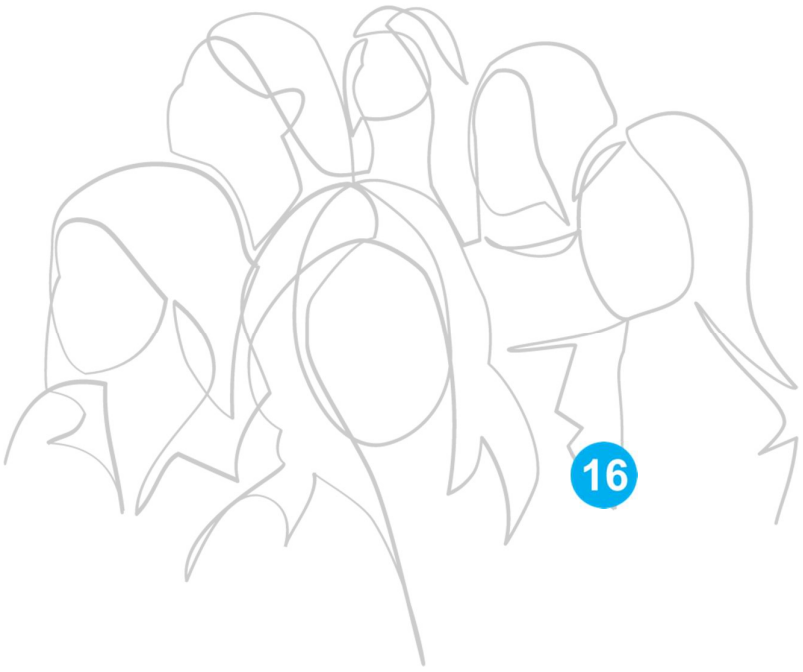
EGYPT

In recent years, Egypt has made major efforts to promote the integration of women into various government policies with the aim to enhance their social, political and economic, status. These efforts have achieved positive results despite significant challenges. The Government has been prioritising ICT jobs and launched the 'Digital Egypt' strategy to promote digital transformation and digital inclusion. In STEM, female student participation in Egypt is only 30-35% though almost equal numbers of women and men graduate with STEM degrees, fewer women pursue STEM careers (UN Women, 2020). Women employment in ICT has grown from 1% in 2009 to 2.3% in 2021, which is better in comparison to men. Egypt ranks 134 out of 146 countries figured in the World Economic Forum's 2023 Gender Gap Report. More effort needs to be put in breaking down the structural barriers that prevent women's integration as gender gaps do persist.

There is no doubt that entrepreneurial women in Egypt are and will be at the forefront of innovative ventures, technological advancement, and economic development, spanning diverse industries.

30-35%

STEM education participation of females in Egypt.



ETHIOPIA

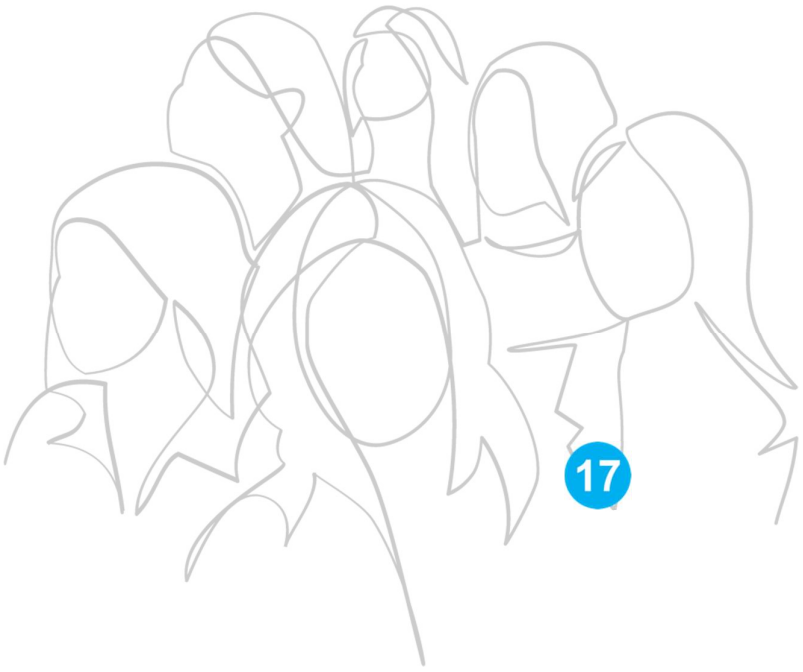
Ethiopia has a concrete Policy on Science, Technology, and Innovation (2018) which recognises the contribution of technology to sustainable development and highlights the need to make efforts that increases the participation of women in technological education and training. The scenario though, for women in the male-dominated technological space in Ethiopia is not very encouraging with low participation of women.

Women face significant under-representation in the field of technology, both in terms of women-led businesses and in tech-oriented Small and Medium Enterprises SMEs. Opportunities in entrepreneurship for women in Ethiopia lag far behind those of men in Ethiopia. Women face many barriers to become entrepreneurs. In Ethiopia women are less educated than men and are less likely to own assets such as a house or land, making it harder for them to find collateral for loan for business.

The Women Entrepreneurship Development Plan (WEDP) is a great step by Ethiopia to support present, future, and budding women entrepreneurs. With financing of $150 million from the World Bank and co-financing of $100 million from other development partners WEDP provides women great avenues like - access to business loans through a network of banks and microfinance institutions apart from technical assistance, training, and mentorship.

$250 MN

WEDP in Ethiopia offers access to capital for business.



SAUDI ARABIA

Saudi women have seen tectonic shift in their lives in the past few years. From women being allowed to drive, work and travel without the permission of a male guardian to taking up senior leadership roles, women's lives have been transformed in remarkable way. These reforms have been guided by the magnificent 'Vision 2030' of the country. Empowerment of Saudi women lies at the heart of this vision which has the stated aim of increasing women's participation in the job market from 22 % to 30 %. Among other benchmark initiatives by Saudi Arabia for women empowerment and representation in technology and entrepreneurship domain, are Qiyadat Program (Female Leadership Program) and 'Women Spark'[12] initiative that will ensure better future for the Kingdom of Saudi Arabia.

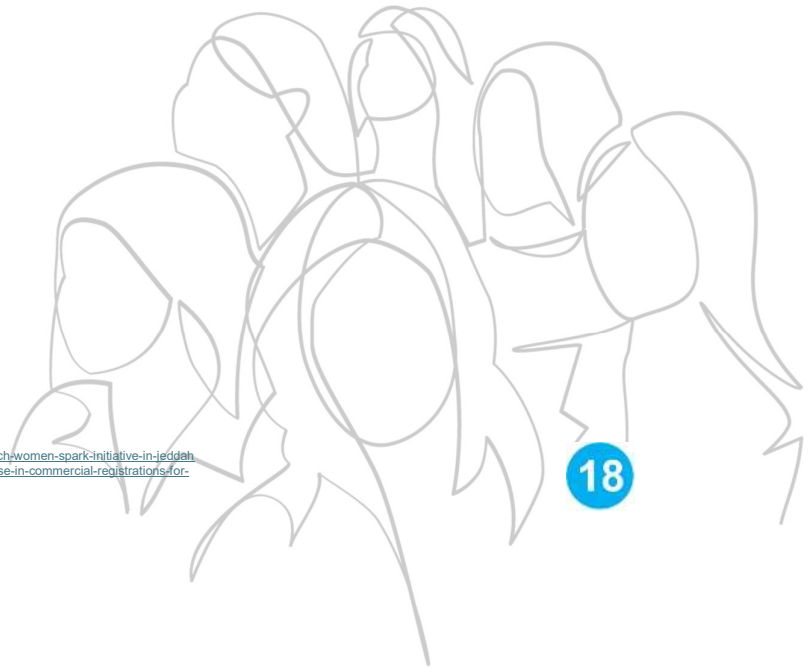
28%

Participation of women in tech sector in Saudi Arabia.

Women are driving change as they work with AI and immersive technology such as virtual reality and metaverse. The participation rate of females in the tech sector stood at 28% in the third quarter of 2021, above the European average rate of 17.5%, according to Kingdom's Ministry of Communications and Information. Saudi women currently make up 40% of digital entrepreneurs and owned 45% of SMEs in the Kingdom. Saudi Arabia has a higher percentage of women in tech start-ups than men. In 2021, the Kingdom issued 139,754 new commercial licenses to women[13] which was a record.

While the rate of business ownership among women in Saudi Arabia has increased significantly, reaching 3.7 % of the female population, compared to just 1.6 percent in 2016, women still face challenges, such as fundraising, culture etc. A collective effort is needed to bring inclusivity in economic development and encourage more investments into female-founded companies.

This is just the beginning for the Saudi women, and the possibilities for growth seem endless.



[12] https://www.eyeofriyadh.com/news/details/saudi-hollandi-bank-and-microsoft-arabia-launch-women-spark-initiative-in-jeddah
[13] https://english.alarabiya.net/News/gulf/2022/02/18/Saudi-Arabia-sees-112-percent-increase-in-commercial-registrations-for-businesswomen

UNITED ARAB EMIRATES

UAE has become a regional hub promising opportunity for women to start and advance their careers. Women make up 66% of the public sector workforce[14] in UAE, of which 30% are in leadership roles. Also, 27.5% of women[15] who make up the UAE cabinet have supported technology and innovation. 61% STEM graduates in the UAE are women.

In UAE's milestone Emirates Mars Mission 34% of the mission and 80% of the entire science team consisted of women. The Sharjah Research, Technology and Innovation Park (SRTI Park)[16] has been instrumental in promoting gender equality in the technology sector through its #WomenInTech forum which is breaking barriers and building bridges for women to thrive in technology arenas.

On the entrepreneurship scene, statistics show that a total of 25,000 Emirati women entrepreneurs own 50,000 trade licences valued at AED 60 billion in 2021. 77.6% of women-owned businesses in the UAE are led by those under the age of 40 (UN Women-NAMA Women Advancement survey).

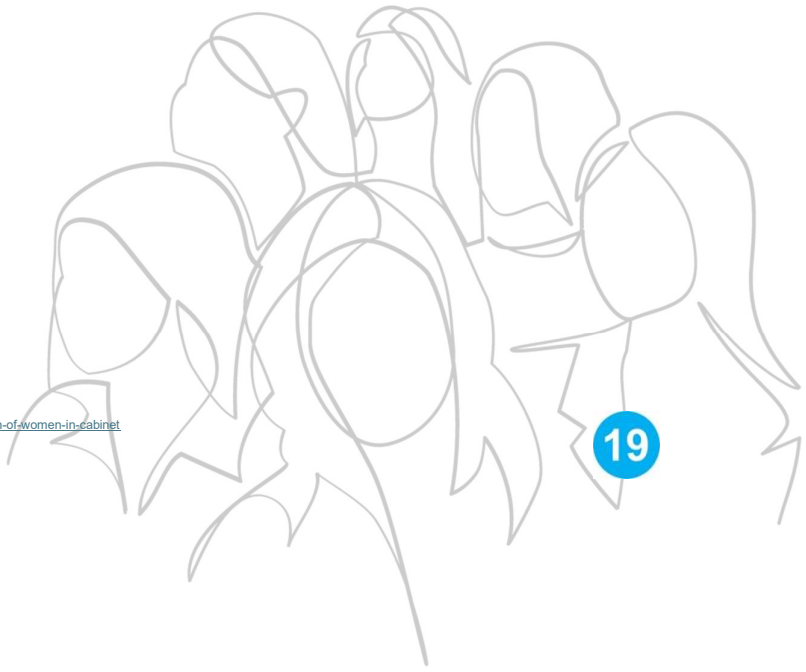
Challenges for women still remain and, though progress is happening. Women are "severely underrepresented" at the leadership level, holding 20 % of leadership roles in the UAE (Global Gender Gap Report, World Economic Forum).

To address the gender gap and its related barriers, concerted efforts are needed from various stakeholders such as educators, industry leaders, governments, and society.

[16] https://www.linkedin.com/company/srtipark/

30%

Women in public sector leadership roles in UAE.



[14] http://www.bbc.com/capital/story/20150422-which-women-get-ahead-in-dubai
[15] http://www.thenational.ae/uae/20160210/uae-ministers-welcome-increased-representation-of-women-in-cabinet

Propelling the Future

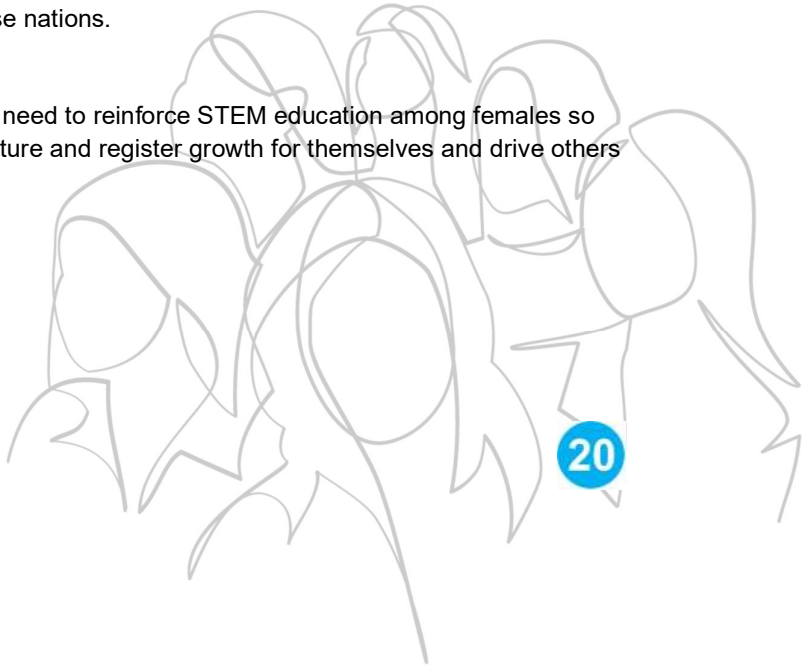
BRICS nations constitute close to half of the total world population. With this impact it becomes clear that women within the region have the potential to exert substantial influence on global gender narratives, initiatives, and policies. The scenario poses significant opportunities and challenges. There is no one-size-fits-all solution to gender empowerment.

The nations can leverage their majority status to advocate for gender equality and decision making globally and create and implement collaborative initiatives with other countries to address common gender-related issues. Such an approach will help in advancing the cause of women in social affairs, politics, and economics. Some of the key recommendations proposed in this regard are enumerated below.

- Participation of mature corporate stakeholders of countries like India in policy making to bring in the already implemented result oriented best practices.
- Creation and implementation of targeted initiatives that promote stronger leadership and entrepreneurial contribution in women.
- Providing equal opportunity to compete and win projects on basis of merit and capabilities.
- Awareness to build mindset for technology, STEM and enterprise.
- Creation of an ecosystem for technology and enterprise that provides mentorship, advocacy, financial and legal literacy and assistance and overall supportive structure.
- Adherence to diversity and inclusivity at all times in all sectors of economy.
- Platforms to feature the inspiring stories of women leadership in corporate sectors in BRICS nations who can inspire other women.
- Benchmarking and profiling of women led startups and entrepreneurs.
- Recognition of promising women leaders in business and technology across BRICS nations.

The BRICS countries can together effectively result in women empowerment at a massive scale globally. Through strong focus on entrepreneurship and technology there can be sustainable avenues enabled for the female population across these nations.

With emerging technologies like AI, there is a need to reinforce STEM education among females so that they can be part of the opportunities of future and register growth for themselves and drive others towards a common goal.



About SheAtWork

Sheatwork.com, a one-stop knowledge hub for women entrepreneurs aims to be a mentor and guide for women from both urban and rural areas - to help them make their entrepreneurial dream a reality. It is a storehouse of information to increase awareness about all relevant areas of entrepreneurship.

Website: www.sheatwork.com, Twitter: @sheatwork_com

About Techarc

Techarc is a market analyst and consulting firm offering knowledge and advisory services to enterprises and startups. Techarc also works closely with leading industry think tanks and trade associations for advocacy and thought leadership programmes.

Founded in 2018, Techarc serves some of the leading global enterprises with market insights and intelligence leveraging latest technologies like AI and ML blended with legacy market research practices. The company has presence in Gurugram and Kashmir.

BRICS
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