

Introduction

According to the World Bank, 48.18% of India's 1.339 billion people are female. And despite an increasing number of women attending school and entering the labor force, the labor force participation rate for women in 2017 was 28.5%, 53.5% less than the male participation rate. The wage gap is still 62% for women who perform the exact same work as men. Furthermore, only 30% of Muslims are in India's labor force and only 15.58% of Muslim women work as compared to 25% of Muslim Men. These statistics stem from the lack of women that climb up the career ladder as compared to their male counterparts as well as the fewer number of women who are able to enter the workforce due to a biased interview process. Companies as well as their employees harbor by both explicit and implicit biases.

Explicit biases are a result of conscious judgements. They are the product of deliberate thought and can be controlled through awareness of their existence. On the other hand, implicit bias, also known as, implicit social cognition bias, "refers to the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner."¹ These biases affect decision makers unconsciously and are activated involuntarily. Implicit biases are different from biases that someone chooses to repress, these biases cannot be discovered even upon internal retrospection. Based on economic, social and political surroundings implicit biases are internalized within and influence our decisions without making their presence aware.

The recent push towards women empowerment in India has led to legislation promoting women in the workplace and encouraging companies to have more women in board positions. As of now only 12.4% board seats are held by women and only 3.2% are board chairs as of 2017. This study attempts to determine whether implicit and explicit biases hinder women and

¹ <http://kirwaninstitute.osu.edu/research/understanding-implicit-bias/>

Muslims from entering the work force. Recording all legislation that has been issued to help minorities enter the work force, this study also attempts to understand barriers to entry for minorities. For the purposes of this study, when referencing minorities, the study is referring to women and Muslims.

Legislation Regarding Minorities in the Workforce

- In 2010 India launched the National Mission for Empowerment of Women. This led to the creation of National Resource Center for Women which functions as a national convergence center for all government programs related to the development of women.
- The Maternity Benefit Act was passed in 1961 but was recently amended to include additional provisions giving mothers more time off, the option to work from home, takes into account adopted children and most importantly requires businesses to make their employees aware of this law.
- 1948 Factories Act requires women to be informed 24 hours in advance before a schedule change. This Act also however places restrictions on when women can work in a factory and how hazardous of an environment they are allowed to work in.
- 1976 Equal Remuneration Act- Employers cannot discriminate between men and women while recruiting and they also must pay men and women the same amount if they are carrying out the same duties.
- Convention on the Elimination of All Forms of Discrimination against Women is an international treaty adopted by the UN and ratified by India. This was a treaty with the goal of understanding what qualifies as discrimination against women and laying out goals to prohibit that discrimination.

- The Indian constitution prohibits discrimination due to religion and sex among a host of other traits in Article 15.
- A study done by Fayaz Bhat and P.K. Mathur argues that, “substantive freedom in education is related to corresponding freedom in employment. Such a kind of casual linkage in substantive freedoms versus limitations in the sphere of education and employment is very clearly confirmed in case of Muslims of India who are educationally backward and economically a marginalized community.²”
- Muslims along with four other religions are classified as minorities in India under the National Commission for Minorities Act. There are also articles in the constitution that give the state the power to create reservations for minorities in the workplace but the state has to have demonstrated discrimination in order for those reservations to be allowed.

² <https://www.tandfonline.com/doi/full/10.1080/13602004.2017.1306387>

Research Experiment

To test for implicit bias in Indian companies, companies were sent for virtually identical resumes with 4 different names, representing 4 different groups in India. Each resume had the name of a female Hindu, female Muslim, male Hindu, or male Muslim. Each resume was meticulously created to maintain controls and consistency among the four resumes. Names were also rotated across the four resumes as to ensure the influence of resume characteristics on the decisions of the recruiters. Each resume consisted of an undergrad education at one of India's top 10 schools with Business programs, and went on to include a graduate business degree from the Indian Institute of Management. The resumes were fitted with two work experiences, University leadership, community leadership, honors and/or additional skills.

The names were selected from lists of top ten names of Hindu males and females as well as Muslim males and females. Each name was structured to be as easily aligned with each gender and religion as possible.

These resumes were placed on four different job sites, MosterIndia, Indeed, Naukri, and LinkedIn, and over 100 jobs were applied to on each of the job searching websites. Only companies in India with a financial focus were applied to but there was no other restriction as to the kind of company that was applied to.

Data was collected on how many responses each candidate received for applied jobs. The resumes were also placed on public view for all Indian companies to view therefore data was also collected on how many unsolicited responses were received from companies that had not been applied to but had actively sought out the candidates resume.

KHALIFA IBRAHIM

85, 5th St, TNHB Colony, Villivakkam, Chennai, Tamil Nadu 600049, India | Khalifaibrahim735@gmail.com

EDUCATION

IIM Lucknow, UP

- Post Graduate Program in Management, CAT: 95%, 12th percentile: 91%

Narsee Monjee Institute of Management Studies, Mumbai

- Anil Surendra Modi School of Commerce, Bachelors of Business Administration
- Final percentage: 94%

PROFESSIONAL EXPERIENCE

FINCEPTION, *Equity Researcher*, Ahmedabad,

2012-2014

- Launched Fintech marketing software abroad, initially in India, as part of a 4-person cross-functional team
- Delivered a presentation to the executive team that identified 100+ target partners for the international sales channel

KOTAK MAHINDRA BANK, *Financial Analyst*, Mumbai

2014-Present

- Consolidated profiles for clients looking for larger investments.
- Aided with day to day duties such as client interactions, phone calls and daily report publishing.

UNIVERSITY LEADERSHIP

Model United Nations, *Under Secretary General*

Spring 2014 – 2015

- Organized conference for over 3000 students and arranged for their transportation, housing, enrichment activities as well as the conference background guides.
- Boosted attendance by 30% and recruited 300 more students than the previous year to attend.

Global Research and Consulting Group, *Director of Marketing*

Spring 2015-2016

- Wrote 20-page report for Peruvian government on the effects of youth protests on Youth laws regarding labor.
- Translated and analyzed government documents in Spanish.

ENTREPRENEURIAL VENTURE

Tested the viability of multiple marketing methods on 5 major investment banking companies in India through TV ads, published ads, and radio ads. Concluded that the most effective form to reach the furthest audience with the lowest cost is radio ads. Published research in three journals and was recognized by the alumni board of alma mater.

HONORS

Winner of Wells Fargo Undergraduate Indian Scholarship

Nominated for International Award for Young People

Honorable Mention in the Button Poetry, Spoken Word Poetry Contest

SKILLS AND INTERESTS

Advanced knowledge in coding through C++, Java, Python/VPython, and R.

Extensive experience with Photoshop, InDesign and HTML through personal web design.

Language: English (fluent), Gujarati (fluent), Hindi (fluent)

Other relevant certifications include Bloomberg certification, CPR certification and FactSet call center certification.

Figure 1: Resume 1 (Name is rotated on each resume)

SHREYA ANAND

Sri Aurobindo Marg, Hauz Khas , New Delhi, Delhi 110016 | ashreya162@gmail.com

EDUCATION

IIM Ahemdabad, Gujrat

- Post Graduate Program in Management, CAT:90%, 12th percentile: 93%

University of Delhi, New Delhi, Delhi

- Bachelors of Business Administration, Financial Investment Analysis
- Best Four %: 94%

PROFESSIONAL EXPERIENCE

PARIJAT MARKETING SERVICES, *Marketing Director*, Mumbai

2012-2014

- Specialized in marketing jewelry and sports goods with clients across 23 states.
- Established three new advertisements on television as well as paper distributions increasing sales by 25% and improving marketing budget by 30,000 rupees

ICICI BANK, *Financial Analyst*, Mumbai

2014-Present

- Vetted and pitched potential investment options, handled budget to allocate for investment research.
- Established further client-banker relationships through marketing events.

UNIVERSITY LEADERSHIP

OUTDOOR ACTION, *Leader*

Spring 2013 -2014

- Co-led 9 freshmen for a week-long backpacking trip on the Appalachian Trail as part of a pre-orientation program

MUSE Marketing and Investment Banking Group, Investment Director

- Handled budget of 10,000 rupees for future investments based on reports made by students.
- Published 35-page report consolidating all investments aiding clients in personal investments.

COMMUNITY SERVICE

PROJECT CIVICS, *Project Leader*

April 2014-September 2014

- Design and administer weekly classroom lessons to school students
- Received the Student Volunteer Council Award for the Most Innovative Project

HONORS

Johns Hopkins AP Scholar

Best Delegate at the UPenn Model United Nations Conference

South Asian Regional Chess Champion

SKILLS & INTERESTS

Technical: Microsoft Office Suite, Bloomberg, Capital IQ, SNL Financial, C++, Java, MATLAB, Python/VPython, R, Bloomberg and Factset certification

Language: English (fluent), Arabic (fluent), Hindi (fluent)

Interests: Camping on the Appalachian Trail, Watching Tottenham Hotspurs and FC Barcelona, Cooking, Skiing

Figure 2:: Resume 2(Name is rotated on each resume)

RAHUL SHAH

B-2, Hira Nagar, Mulund West, Mumbai, Maharashtra 400080, India | rahuljshah63@gmail.com

EDUCATION

IIM Calcutta, Kolkata

- Post Graduate Program in Management, CAT: 91%, 12th percentile: 93%

Symbiosis International University, Pune

- Bachelors of Business Administration
- SET Exam: 94%

PROFESSIONAL EXPERIENCE

TRACTUS ASIA, *Summer Analyst*, Pondicherry, India

2012-2014

Strategy & management consulting firm based in Bangkok focused on market entry strategy and site selection in Asia

- Drafted a client-facing incorporation report to build out a company knowledge database
- Screened domestic partners for foreign clients, wrote sector overviews, and worked on market entry strategies

BIRLA GOBAL FINANCE LIMITED, *Business Development Head*, Mumbai

2016-Present

Finance company focusing on real estate financial services and wealth management.

- Communicated with clients and supervisors during meetings and calls
- Reviewed over 10 reseller contracts, set up product demo accounts, and analyzed the competitive market

UNIVERSITY LEADERSHIP

Teen Voices and Questioz (Film and Television Review), *Writer & Editor*

September 2014 – 2015

- Write, edit, and manage print, audio, and video content for the online publication
- Advertised the paper through outreach on campus and through liaison with NYT Film Critic, A.O. Scott

180 Degrees Consulting, *Directing of Consulting teams*

September 2015 – 2016

- Trained teams of 20 students as consultants and published investment proposals.
- Increased club recruiting by 30% and return rates by 25%.

COMMUNITY SERVICE

Design weekly classroom lessons and tutor 10th grade students in studies.

2016-2017

Participated in an alternative spring break trip to raise awareness about HIV/AIDS

March 2014

HONORS

Fellow in the Mahatma Gandhi Program in Political Thought

2017 – Present

Student Volunteer Council Award for the Most Innovative Project

2015

Honorable Mention in the Itinerant Languages of Photography Contest

December 2016

Additional Skills

Adobe InDesign/Photoshop, C++, MATLAB, R

Fluent in English, Arabic and Hindi

EMT and Wilderness First Aid Certified

Bloomberg and Factset certification

Figure 3:: Resume 3(Name is rotated on each resume)

MOHAMMED ABBAS

Manjeera Pipeline Road, Madinaguda, Hyderabad, Telangana 500049, India | mohjabbas@gmail.com

EDUCATION

IIM Bangalore, Karnataka

- Post Graduate Program in Management, CAT: 92%, 12th percentile: 94%

University of Mumbai, Bombay

- Bachelors of Management Studies
- Final Percentage: 93%

PROFESSIONAL EXPERIENCE

Gruh Finance, *Business Development Intern*, Mumbai

2012-2014

- Launched Gruh Finance marketing software abroad, initially in UK, as part of a 4-person cross-functional team
- Delivered a presentation to the executive team that identified 100+ target partners for the international sales channel

BNP PARIBAS, *Financial Analyst*, Chennai, Tamil Nadu

2016-Present

- Performed equity research for 4 high profile clients and presented to them.
- Increased their potential profit margin by 30%; in charge of their finances within a group of 4 selected analysts.

ENTREPRENEURIAL VENTURE

Founded RevaLOotion; a company that serves to provide the Indian population with affordable toilets that use decomposition to remove the need for pipelines. Aimed at providing the over 20% of Indian population in rural areas that lack access to toilets with clean areas to defecate. Won over 10,000 dollars in venture funds through Wharton Business Competitions and successfully created a prototype.

HONORS

Awarded Best Business Pitch at Wharton Business Competition

EMT Certification

Best Delegate at Ivy League Model United Nations Conference

SKILLS

Computer Knowledge: Adobe InDesign/Photoshop, C++, Java, MATLAB, Python/VPython, R, Bloomberg certification

Language proficiency: English (fluent), Gujarati (fluent), Hindi (fluent)

Leadership position experience: Under Secretary General of ILMUNC, Director of Marketing for Global Research and Consulting

Figure 4:: Resume 4(Name is rotated on each resume)

Analysis

The null hypothesis for the research was: Religion and gender have no effect on the probability of being hired at an Indian company. The hypothesis was: Gender and religion elicit implicit bias and effect the decision-making process for hiring purposes in Indian companies.

To determine the significance of the results a chi-squared test of independence was performed on the amount of responses received depending on ethnicity and gender. A p-value of 0.05 was determined to be the alpha under which chance would be omitted and the results would be considered significant. Tests were done for both the solicited and unsolicited responses.

Results can be seen in Figures 5 and 6. While there was difference in the number of women and men that received responses according to the chi-squared test for independence this was not significant to conclude that these results were not based on chance. While this does not conclude that implicit bias does not exist in Indian companies, for the purpose of this research it concludes that there was not a significant amount of bias displayed by employers.

It is also important to note that the amount of unsolicited responses for Hindu men and Muslim men is exactly the same resulting in a p-value of 1 and thus proving no bias between men of the religions. The p-value of the solicited responses for Muslim men and Hindu men was also high signifying a lack of significant discrimination.

It is extremely important to note that laws in India regarding discrimination apply to public companies and government agencies but have very little influence over the hiring practices of private companies. Therefore, explicit bias was also observed throughout this research that affected the companies that were applied to. Companies such as Irasol India and Python management, among many others, had positions listed for specific genders. Job positions at the respective companies were specifically stated to be open for only male/female applicants.

While certain companies stated that a specific gender was *preferred*, the companies explicitly discriminated during the hiring process limiting people for applying to certain jobs.

The research itself was fulfilled with the intent to determine whether implicit bias existed within Indian companies so this research must be critically viewed. A shortcoming of the research was the smaller sample size of responses. While over 100 companies were contacted for job positions, less than 15% responded for each of the 4 applicants. A smaller sample size and lower response rate preclude the study from confidently being applied to a larger population.

Solicited						
Response	Hindu	Muslim	Male	Female	27	X-squared = 0.76923, df = 3, p-value = 0.8568
Response	Hindu-Male	Muslim-Male			12	X-squared = 0.04, df = 1, p-value = 0.8415
Response	Hindu-Female	Muslim-Female			11	X-squared = 0.92593, df = 1, p-value = 0.3359
Response	Hindu-Male	Hindu-Female			16	X-squared = 0.31034, df = 1, p-value = 0.5775
Response	Muslim-Male	Muslim-Female			11	X-squared = 0.043478, df = 1, p-value = 0.8348

Figure 5: Chi-Squared Test of Independence for Solicited Responses

Unsolicited						
Response	Hindu	Muslim	Male	Female	43	X-squared = 1.6267, df = 3, p-value = 0.6534
Response	Hindu-Male	Muslim-Male			16	X-squared = 0, df = 1, p-value = 1
Response	Hindu-Female	Muslim-Female			22	X-squared = 0.023256, df = 1, p-value = 0.8788
Response	Hindu-Male	Hindu-Female			21	X-squared = 0.67568, df = 1, p-value = 0.4111
Response	Muslim-Male	Muslim-Female			22	X-squared = 0.94737, df = 1, p-value = 0.3304

Figure 6: Chi-Squared Test of Independence for Unsolicited Responses

How Implicit Bias Can be Eradicated

Fortunately, social scientists are researching methods to combat implicit bias on the individual and institutional levels with the goal of reducing implicit bias and debasing it as a whole. Implicit bias is a function of System 1 thinking, which is one of two cognitive processes humans use to make decisions. System 1 is intuitive, instantaneous and often based on feelings. System 2, on the other hand, is deliberative, controlled by reasoning and analysis. As is common with decision fatigue System 2 thinking cannot be performed well consistently; if one decision is made with System 2 thinking such as hiring an employee after a deliberate process that involves judging them by the quality of the work, it will be more difficult to fairly make another decision on another applicant immediately after. Subsequently, System 1 thinking will take over and the next applicant will get a less fair treatment as implicit biases have a greater effect.

To avoid decision fatigue, interviewers and current employees determining the worthiness of applicants should pace the number of applicants they evaluate in a day as well as how many they evaluate in a row. Employers should take a couple minutes between each decision disengaging the System 2 thinking therefore removing the need for System 1 thinking to become involved.

Another important strategy is to implement anonymity within the primary stages of the application process. “Orchestrating Impartiality: The Impact of “Blind” Auditions on Female Musicians” is a study done that concluded that implementing blind auditions for people auditioning for the orchestra increased female musicians in the top five orchestras in the country from 6% to 21%. Blind auditions, in this situation, means that the musician auditioned from behind a curtain. As this cannot directly apply to corporate job interviews, removing gender indications from applications as well as any indications of religion

and ethnicity serve to suppress implicit biases. Companies like GapJumpers have successfully transformed the hiring process for client companies by initiating blind hiring and more inclusive Job ads as to avoid both implicit and explicit companies.

Structured Free Recall is another method that had been proven in countless studies to reduce the impact of bias on decision making by evaluators. Free Recall Intervention is a method in which interviewers are required, immediately after or during their interaction with the applicant, to write down positive and negative attributes that are applicable to the job. The values and skills that each position requires should be written down prior to the interview and then the applicant should be evaluated on the demonstrated ability to match those criteria.

This also reduces the impact of confabulation; this is another cognitive failure that allows people to justify decisions incorrectly based on fabricated or misinterpreted recollections. Confabulation causes employees to justify arbitrary decisions about applicants based on criteria that were never truly used as judgement. Requiring employees and interviewers to record their thoughts during interactions with potential candidates holds them accountable to make decisions solely based on the criteria stated and not their gut feelings.

Implicit bias is further heightened by ambiguity; when employees are unclear of the position and the skills required they rely on gut feeling and judgement instead of deliberate processes. Therefore, it is vital that employees undergo training on how to interview, the requirements for each role and all other information necessary prior to entering the interaction with the applicant.

When organizations fail to provide feedback that holds decision makers accountable for their judgments and actions, individuals are less likely to remain vigilant for possible bias in their own decision-making processes (Neuberg & Fiske, 1987; Tetlock, 1983) Requiring employees to record and justify their decision process makes them more willing to choose worthy applicants.

Companies should also establish a peer review process in which employees are able to deliver constructive criticism to each other to further the goal of improving hiring methods through their individual interactions with applicants.

Conclusion

Laws in India prohibit gender and religion based discrimination in public companies and government entities but do not strictly restrict private companies. Due to these laws, explicit bias still openly exists in Indian job hiring practices. The research that was conducted did not find evidence of implicit bias in hiring methods of companies based on gender or religion, however this should not preclude the advancement of laws promoting the increase of diversity in the workplace. To attempt to eliminate implicit bias in companies, outside sources can be hired and internal structural improvements can also be made. Overall, explicit bias is prohibiting women from reaching the same heights as men and fulfilling their potential making it of vital importance that changes are made for the betterment of the Indian economy as well as individual hard-working females.

References

- Baltes, B B, et al. "Does a Structured Free Recall Intervention Reduce the Effect of Stereotypes on Performance Ratings and by What Cognitive Mechanism?" *The Journal of Applied Psychology*, U.S. National Library of Medicine, Jan. 2007, www.ncbi.nlm.nih.gov/pubmed/17227157.
- "Barriers and Bias: The Status of Women in Leadership." *AAUW: Empowering Women Since 1881*, www.aauw.org/research/barriers-and-bias/.
- "Blind Hiring to Eliminate Unconscious Bias." *GapJumpers | Blind Hiring to Eliminate Unconscious Bias*, www.gapjumpers.me/.
- BrandoStarkey. "How to Combat Implicit Bias." *The Undeclared*, The Undeclared, 16 Aug. 2016, theundefeated.com/features/how-to-combat-implicit-bias/.
- Delanceyplace. "The Two Systems of Cognitive Processes." *Big Think*, Big Think, 6 Oct. 2018, bigthink.com/delancey-place/the-two-systems-of-cognitive-processes.
- Dubey, Neeraj. "International Comparative Legal Guides." *Employment & Labour Law 2018 / India | ICLG*, Global Legal Group, iclg.com/practice-areas/employment-and-labour-laws-and-regulations/india#chaptercontent3.
- Goldin, Claudia, and Cecilia Rouse. "Orchestrating Impartiality: The Impact of 'Blind' Auditions on Female Musicians." *Gender Action Portal*, 1 Jan. 1970, gap.hks.harvard.edu/orchestrating-impartiality-impact-%E2%80%9Cbblind%E2%80%9D-auditions-female-musicians.
- "Indians Support Gender Equality But Still Give Men Edge in Workplace, Higher Education." *Pew Research Center's Global Attitudes Project*, Pew Research Center's Global Attitudes Project, 1 June 2015, www.pewglobal.org/2013/01/04/indians-support-gender-equality-but-still-give-men-edge-.
- "International Religious Freedom Report." *U.S. Department of State*, U.S. Department of State, 2012, www.state.gov/j/drl/rls/irf/2012religiousfreedom/index.htm?dlid=208178&year=2012#wrapper.
- Rahman, Shaikh Azizur. "Muslims Masquerade as Hindus for India Jobs." *India | Al Jazeera*, Al Jazeera, 10 Dec. 2013, www.aljazeera.com/indepth/features/2013/12/muslims-masquerade-as-hindus-india-jobs-2013129134443863250.html.
- Sirabian, Maximum M. *Efficacy of a Structured Free Recall Intervention to Improve Rating Quality in Performance Evaluations*, Wayne State University, Ann Arbor, 2017. ProQuest, <https://proxy.library.upenn.edu/login?url=https://search.proquest.com/docview/1912760526?accountid=14707>

“Text of the Convention on the Elimination of All Forms of Discrimination against Women.” *United Nations*, United Nations, 1982,
www.un.org/womenwatch/daw/cedaw/cedaw.htm

Thekkudan, Julie. “India Must Tear Down Gender Inequality In The Workplace.” *HuffPost India*, HuffPost India, 1 Nov. 2016, www.huffingtonpost.in/julie-thekkudan/india-must-tear-down-gender-inequality-in-the-workplace_a_21595119/.

Tropp, Linda, and Rachel Godsil. “Overcoming Implicit Bias and Racial Anxiety.” *Psychology Today*, Sussex Publishers, 23 Jan. 2015, www.psychologytoday.com/us/blog/sound-science-sound-policy/201501/overcoming-implicit-bias-and-racial-anxiety.

Venessa. “Women in the Workforce: India.” *Catalyst*, 19 Sept. 2018, www.catalyst.org/knowledge/women-workforce-india.