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Gendered Impact of Nudges on Job Choices: Experimental Evidence from India

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Abstract: ***This study examines the impact of gender preferences on a nudge-based job application scenario. Past research has shown that there exist some gender specific differences in response to nudges. However, these differ from context to context. Contextualizing a labour market scenario, two scenario of a job application was designed, with nudges places in each scenario. The two scenarios represented similar job description, but across different levels of hierarchy in an organization. The result of the study shows that while men did not respond favorably to the job application in the junior hierarchical job role, however, men responded favorably to the nudge for the job application at the senior hierarchical job role. While job advertisements play a crucial role in attracting good talent to the workforce, this study reemphasizes the role of nudges in the labour market environment.***

Keywords: nudge, gender, labour

1. Introduction

Despite tremendous improvement towards gender equality, female labour force participation remains unbalanced worldwide. According to the International Labour Organization and World Bank, globally, the female labour force participation rate is 47-49% of women aged 15 and older who are either working or actively looking for work. This figure, however, hides the disparities of the female labour force participation (FLFP) rate amongst different countries. For instance, the female labour force participation in India is 37% (as of 2022–2023, according to India's Ministry of Statistics). This takes place due to various reasons, like the social norms of a society and many pre-set expectations in the society that women should not work outside the house, not only that there can also be a lack of employment opportunities and education for women. On the other hand, countries like Mozambique report rates of female labour participation as high as 77% (World Bank, 2023). This also takes place due to various factors like cultural acceptance of working women, subsistence farming, and better training and education.

If we compare countries like Bangladesh and Vietnam in economic and demographic terms, India still lags. For example, Bangladesh reports female labour force participation of 42% (World Bank, 2023), and Vietnam has an impressive 69% (World Bank, 2023). For example, Bangladesh may have cultural and social norms due to rural areas having restrictions on women working outside the house. They could have issues with early marriage, which may lead to women not being able to focus on their education or career. Not only that there could be safety or mobility issues. Lack of safety or the distance while travelling to the job may be difficult and could be hard. This would lead to women not leaving their homes. While female labor force participation in Vietnam is quite high, several structural and social constraints continue to stop women from full economic activity and full economic freedom. Women tend to experience a gender pay gap and a glass ceiling, with lower pay than men and fewer leadership roles, which can limit long-term career advancement. They also carry a double burden, as unpaid domestic work is usually their responsibility, and many of them cut their working hours or even drop out of the labor force. This not only leads to more pressure but leads to compromise at the same time too. Further issues that can be faced is the shortage of proper care facilities, like lower cost for childcare, that limit many mothers from seeking full-time work and cannot commit fully.

In response to all these gender disparities, the government and many organizations worldwide have implemented various policies to increase the female labour participation rate. These policies include maternity leaves, mandated representation in leadership, and return-to-work programs. However, fewer policies are being addressed towards behavioral approaches (like incentives and psychological nudges).

This study is going to focus on how behavioural policies enhance the overall female labour force participation in India. This study is of relevance because understanding how men and women respond differently to behavioral nudges directly impacts the strategies aimed at reducing gender disparities. Many factors shape these differences, like psychological, cultural, and social factors and behavioral factors. Addressing these dynamics is important because workplace gender disparities affect economic growth, organizational performance, and social equity. Economic growth is affected, as making sure there is gender equality will allow the country to reach maximum potential and reach full capacity, leading to better productivity. The goal is to understand how men and women think and respond differently to behavioral nudges, such as quotas or incentives, aimed at reducing gender disparities in workplaces and leadership roles.

In this paper, we will be experimenting to see how people react to behavioral nudges. The main finding of our study is that the gendered response is different based on the job advertisement. For entry level roles, the nudge had an inhibiting effect on the choices of men, while for senior level roles, the nudge had no discerning effect on the choice preference. The paper contributes to the literature on nudges and gender, by addressing how nudges can have a significant effect on gender choices in India. While a lot of studies have examined the effect of nudges from a gender lens, we

contextualize our study in a labour market scenario, where we investigate the effect of nudges on choice preferences in a labour market scenario.

2. Literature Review

Hengchen Dai (2021) studied how *Behavioural Nudges Increase COVID-19 Vaccinations*. This was done in the United States via an experiment. The nudge boosted the vaccine rates. **Letian Zhang (2020)** studied *An Institutional Approach to Gender Diversity and Firm Performance*. This was done across 35 countries and 24 industries via analysis of data from 1,069 public firms. The study found that the relationship between gender diversity and firm performance varies significantly across countries and industries due to institutional differences. Firms in environments where gender diversity is normatively accepted experience more positive market valuation and increased revenue. **Muhammad Ali (2015)** examined the *Impact of Gender-Focused Human Resource Management on Performance: The Mediating Effects of Gender Diversity*. This was done in Australia via survey data analysis of organizations listed on the Australian Securities Exchange. The study indicates that gender-focused HR policies and practices are positively associated with gender diversity at both non-management and management levels. Furthermore, gender diversity partially mediates the relationship between these HR policies and organizational performance, enhancing performance through workforce diversity. **Jens Schubert (2022)** investigated how social norm nudges and market incentives affect study effort in male and female students.This was conducted at a German university via randomized controlled trial. They seperated and segmented the experiment groups, the study measured involvement with study plan and problem-solving. The study found that for men, a social norm nudge involved involvement by 12%, and for women the nudge alone did not boost involvement. And when combined with market incentives both men and women increased effort but from a nudge men did the most. **Giovanni Abbiati, Gianluca Argentin, Carlo Barone, Antonio Schizzerotto,(2017)** studied a field experiment on information barriers in higher education. Whether better information about economic returns to different university fields can reduce gender-based segregation in college majors. In this experiment high school workshops were taken in which detailed information was provided on the labour market outcomes, targeting gender based steryotyoes and social thoughts. This led to girlss enrolments increasing in high-paying, male dominated fields and reduced the stereotypes and had more female interest in STEM and other fields. Even the boys were affected but not as much as girls and this is why the informational nudge was necessary. **Clara Kögel, Chiara Criscuolo, Peter Gal, and Cyrille Schwellnus (2023)** examined *Gender Diversity in Senior Management and Firm Productivity: Evidence from Nine OECD Countries*. This was done across nine OECD countries via cross-country dataset analysis of manufacturing and non-financial market service firms. The research indicates that increasing the female share in senior management to the sample average of 20% in firms with initially lower shares could boost aggregate productivity by approximately 0.6%. **Kerri Brick, Samantha De Martino, and Martine Visser (2023)** examined *Behavioural Nudges for Water Conservation in Unequal Settings: Experimental Evidence from Cape Town*. This was done in South Africa via a large-scale field experiment involving over 360,000 households. The study found that behavioral messages reduced water use by 0.6% to 1.3% over six months. Nudges that provided social recognition and appeals to public interest were most effective. Wealthier households were more responsive to social incentives. **Laura Cappellucci, Lan Ha, Jeremy Honig, Christopher R. Knittel, Amy Vetter, and Richard Wilner (2024)** studied *Small Changes, Big Impact: Nudging Employees Toward Sustainable Behaviors*. This was done in the United States via three randomized control trials in a biopharmaceutical company. Implementing social norm-based nudges resulted in a 70% reduction in plastic waste, over 80% decrease in freezer door alarms, and a 40% improvement in recycling practices. These effects were sustained over time without disrupting business operations. **Philip Ebert and Wolfgang Freibichler (2017)** studied *Nudge Management: Applying Behavioural Science to Increase Knowledge Worker Productivity*. This was done in the United Kingdom and Germany via conceptual analysis. The paper proposes that 'nudge management'—the application of subtle behavioral cues—can improve productivity by aligning work environments with cognitive tendencies. **Carl Bonander, Mats Ekman, and Niklas Jakobsson (2023)** studied *When Do Default Nudges Work?*. This was done in Sweden via analysis of regional variations in COVID-19 vaccine roll-out. The study found that default nudges were more effective among younger individuals (16–17 years old) who faced lower health risks, suggesting nudges are more influential when decisions are less personally significant. **Andreas Leibbrandt, Liang Choon Wang, and Cordelia Foo (2018)** studied *Gender Quotas, Competitions, and Peer Review: Experimental Evidence on the Backlash Against Women*. This was done in Australia via laboratory experiments involving competitions with and without gender quotas and a peer review process. The study found that the possibility of peer sabotage rendered gender quotas ineffective in encouraging women to enter tournaments. A backlash emerged, with women targeting each other for sabotage, while men sabotaged indiscriminately. **Edwin Ip, Andreas Leibbrandt, and Joseph Vecci (2020)** studied *How Do Gender Quotas Affect Workplace Relationships?*. This was done in Australia through representative surveys and labor market experiments. The study found that quotas were only supported in environments where women were disadvantaged. In those contexts, quotas led to higher effort and wages. Where no disadvantage was perceived, quotas resulted in lower effort and wages. **Natalia V. Czap, Hans J. Czap, Marianna Khachaturyan and Mark E. Burbach(2018)** studied *Comparing Female and Male Response to Financial Incentives and Empathy Nudging in an Environmental Context*. This was done in the United States via a framed laboratory experiment. The study found that financial incentives were effective for both genders, while empathy nudging was only effective for females. Combining both led to a synergistic effect for women, but not for men.

3. Methodology and Data

This study aims to examine the impact of nudges on preferences across both genders, men and women. The core question is to examine whether men and women respond differently to a nudge in a particular context. In order to

answer this research question, we conducted a survey to measure the gender difference in response to a contextual situation by designing a nudge. The respondents of the survey were from India. The survey was designed and sent to 130 participants out of which we received 115 responses (see Annexure). The survey respondents were restricted to working class individuals since the context was regarding a job posting. In the survey we designed a hypothetical advertisement for 2 specific roles (entry level and senior management) in the information and technology sector in India. In order to nudge the participants a line was added in the end of the advertisement that specified that women are encouraged to apply for the role. Given the diversity, equality, and inclusivity (DEI) policies of most leading firms, this line acted as a nudge to assess whether men and women respond differently to the same job advertisement.

In our sample, there were a total of 115 responses out of which 91(79.1%) were male and 24(20.9%) were female (see Figure 1).

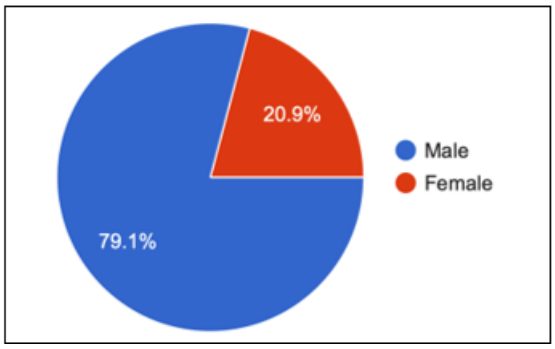

Figure 1: The gender demographics of survey respondents
Source: Author's computation from primary survey sample

Out of the 115 respondents 41.2% are from Ahmedabad. 2.6% are from Hyderabad. 2.6% are from Champa. 3.5% are from Noida. 7.0% are from Delhi. 3.5% are from Bangalore. 11.4% are from Mumbai and 28.1% are from other places in India (see Figure 2).

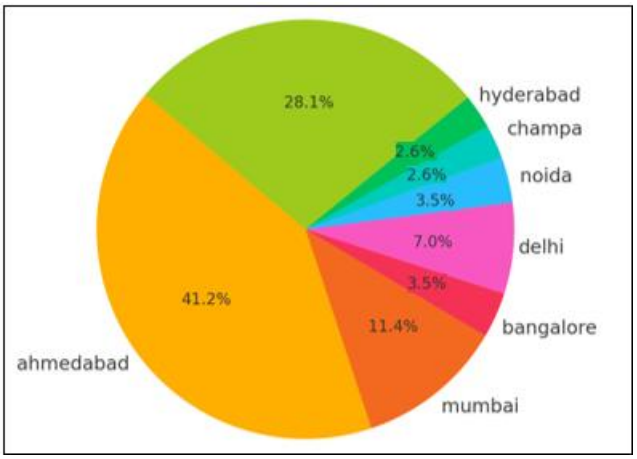

Figure 2: Geographical representation of survey respondents
Source: Author's computation from primary survey sample

Out of the 115 respondents 43.5% of the people were in the age range of 43-53. 13% were in the age range of 54-64 .14.8% of the respondents were between 22-31 and 26.1% were in the age range of 32-42. The remaining 2.6% were 65 or above (see Figure 3).

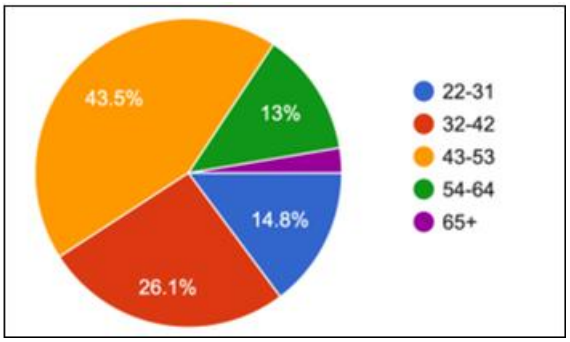

Figure 3: Age demographics of respondents
Source: Author's computation from primary survey sample

With regard to work experience, 47.8% had 20 or more years of work experience. 10.4% had a range of 16-20 years of working experience. 18.3% had 11-15 years of work experience. 11.3% had 6-10 years of work experience. And the remaining 12.2% had 0-5 years of work experience (see Figure 4)

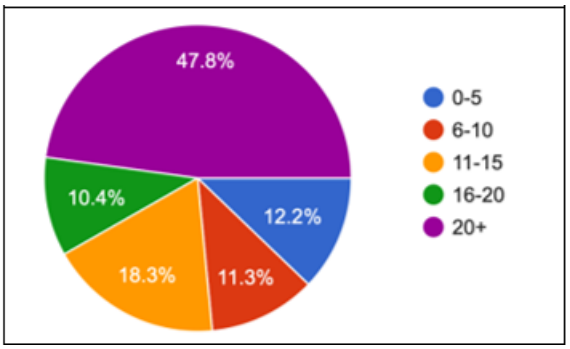

Figure 4: Work experience (in years) of the survey respondents
Source: Author's computation from primary survey sample

61.7% of people have masters as their highest qualification as masters. 31.3% of people have gotten their bachelors. The rest 7% of people have done one of the following: PHD, CA, Chartered accountant, Diploma in textiles, CA, CMA, CS Exec, BE and diploma in business management (see Figure 5)

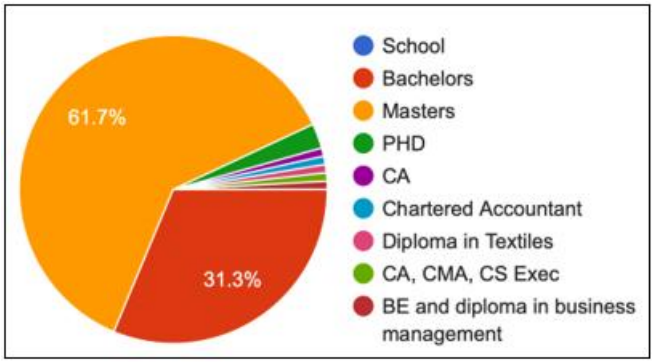

Figure 5: Highest educational qualification of survey respondents
Source: Author's computation from primary survey sample

59.1% of the people earn INR 21+ lakhs annually. 14.8% of the people earn INR 0-5 lakhs annually. 7.8% of the people

earn INR 6 lakhs- 10 lakhs. 7.8% of the people earn INR 11 lakhs-15 lakhs. And 10.4% of the people earn INR 16 lakhs-20 lakhs (see Figure 6)

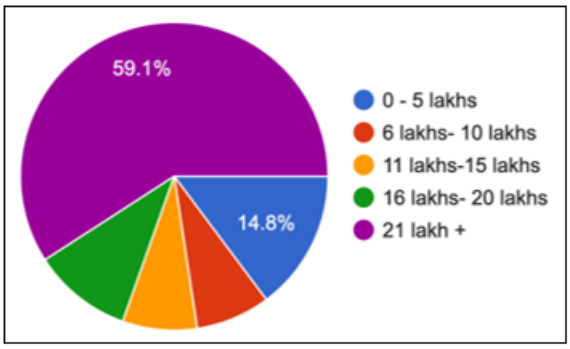

Figure 6: Average annual earnings of survey respondents.

Source: Author's computation from primary survey sample

Out of the 115 industry responses collected, the highest number of participants—10 people—belonged to the IT sector (including software-related roles). This was followed closely by consulting and finance, with 9 people each, and manufacturing with 8. Education and the steel & power sector had 6 respondents each, while real estate had 5. Four individuals were associated with the chemicals industry, and 3 each were involved in marketing, textile, and FMCG sectors. Smaller but notable representations included art, service, engineering, telecom, furniture, automobile, refractories, and healthcare, each with 2 respondents. The remaining 32 people were spread across a wide variety of unique or niche industries, which have been grouped under "Other." (see Figure 7)

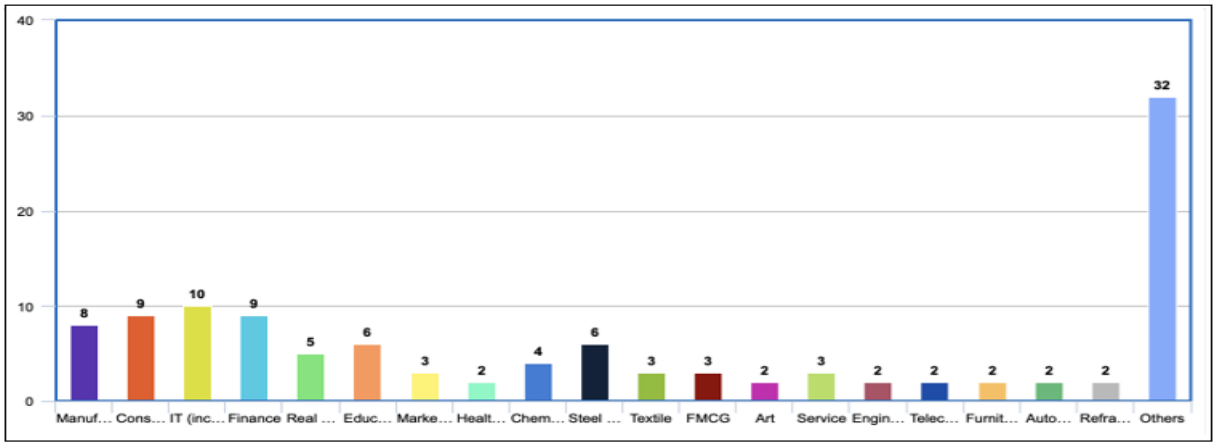

Figure 7: Industry wise categorization of survey respondents

Source: Author's computation from primary survey sample

4. Results and analysis

The hypothesis of our study was that there is no significant difference between the choices of men and women on job advertisements, when a nudge is included in the job advertisement. To test this hypothesis, we run a two-tailed unequal sample t-test. Since the sample size is not equal for both men and women, this is the most appropriate test that can examine if there is a significant difference between the choices of men and women on the advertisement that is shown. Table 1 below illustrates the results of the two-sample t-test that tests whether there is a significant difference in the choices of men and women on the advertisement. It is seen that on an average 15% of men have accepted the job advertisement, while 41.6% of women have accepted the job advertisement. The t-statistic is 2.04, and the associated p-value is 0.019. Since the associated p-value is less than 0.05, we reject the null hypothesis, and accept the alternative hypothesis that the difference is significant. Hence, when the nudge is placed, women are more likely to accept this position

Table 1: T- test statistic of the difference in job choices on the placement of the nudge for a junior level role.

	Men	Women
Mean	0.14	0.41
Variance	0.21	0.25
Observations	89	24
T- statistics	2.47	
Probability value	0.01	

In the second scenario, we provide a similar situation, however, we change the designation from a junior role to a senior role. We notice that as the role and designation changes, the proportion of men and women accepting the offer changes. 25 percent of men now accept the job offer, compared to only 17 percent of women. Table 2 illustrates the t-test result for the significance in difference. The t-statistic is 2.01, and the associated p-value is 0.37. Since the associated p-value is greater than 0.05, we fail to reject the null hypothesis, thus concluding that there is no significant difference in the preference of men and women in spite of the nudge being placed on the job advertisement for a senior role.

Table 2: T- test statistic of the difference in job choices on the placement of the nudge for a senior level role.

	Men	Women
Mean	0.24	0.16
Variance	0.18	0.14
Observations	89	24
T- statistics	0.89	
Probability value	0.37	

5. Conclusion, Limitations and Policy Recommendations

The aim of this study was to examine the gender differential effect of nudges on the choice pattern of men and women. To answer this research question, we conducted an experiment through an online survey to capture the difference in

responses of men and women in a nudge-based scenario. The survey captured various broad demographics, and then provided a scenario for a job opportunity for two roles (entry level and senior level). A nudge was placed towards the end of the job post, mentioning that women are encouraged to apply for this role. The results revealed that for the entry level role, the acceptance rate (number of women accepting the job as a ratio of total women in the sample) for the job offer by women was significantly higher than the acceptance rate for men. Hence, the nudge was favorably seen by women. However, when the job post was for a senior position, the acceptance rate was higher for men than for women. Thus, while the nudge had a negative effect on men for the junior position, the nudge had no effect on the choice preference for the senior level job advertisement.

The research has important managerial implications as firms need to be vigilant while posting job advertisements for roles across different hierarchy levels. While nudges are commonly used in most advertisements today, the effect of the nudges on men and women can differ depending on the job role and the position of that role in the hierarchy. The study has a few limitations. First, the sample is restricted only to India. Second, the job description and scenario is based on the Information and Technology industry (IT). Third, the sample size of the study is limited. Hence, future studies could look at expanding the research to different geographies, and providing various job scenarios across different business functions for a more robust result.

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Annexure

Survey Questionnaire
Impact of gender on behavioural nudges
This study aims to examine gender differences on behavioural nudges for industry sector employees in India. The responses of this study will be kept unanimous and it should not take the respondent more than 10 minutes to complete this questionnaire. Thank you for your time and patience.

Full name: (short answer format)

Which city are you from? (Short answer format)

Gender
- Male
- Female

Your age
22-31
32-42
43-53
54-64
65+

Which industry are you working in? (short answer format)

How many years of work experience do you have?
0-5
6-10
11-15
16-20
20+

What is the highest degree of education and qualification received?
School
Bachelors
Masters
PHD
Other:_____

What is your annual income (1 year)? (INR)
- 0-5 lakhs
- 6 lakhs- 10 lakhs
- 11 lakhs-15 lakhs
- 16 lakhs- 20 lakhs
- 21 lakh +

Case Study 1:

Please read the following scenario as mentioned below and answer the following questions:

Job Title: Junior Software Developer
Location: India
Employment Type: Full-Time
Experience Level: Entry-Level

About Us:
Turtle Monkey is a fast-growing tech company dedicated to building innovative software solutions that make a real-world impact. We foster a collaborative, inclusive, and dynamic work environment where continuous learning and growth are encouraged.

Position Overview:
We are seeking a passionate and motivated Junior Software Developer to join our development team. This role is ideal for someone who has a foundational understanding of software development and is eager to learn and contribute to exciting projects, and make a real life impact. You'll work closely with senior developers and other cross-functional teams to deliver high-quality code and improve our products and services.

Key Responsibilities:
Assist in the design, development, testing, and deployment of software applications
Write clean, efficient, and maintainable code
Collaborate with team members to troubleshoot and debug issues
Participate in code reviews and team meetings
Stay current with emerging technologies and development trends
Document software processes and technical information

Requirements:
Bachelor's degree in Computer Science, Software Engineering, or a related field (or equivalent experience)
Familiarity with at least one programming language (e.g., Python, JavaScript, Java, C#)
Basic understanding of web development (HTML, CSS, JavaScript)
Good problem-solving and communication skills
Willingness to learn and take initiative
Ability to work both independently and as part of a team
Experience with version control systems like Git
Exposure to frameworks or tools like React, Node.js, or Django
Internship or academic project experience in software development

What We Offer:
A Competitive salary, with health insurance benefits and an inclusive work environment. We also provide opportunities for mentorship and professional development. The firm provides flexible work hours and remote work options. Please submit your resume, a brief cover letter, and links to any relevant work or GitHub profiles to abc@gmail.com. Turtle Monkey is committed to fostering a diverse and inclusive workplace and encourage applications from all qualified candidates. Women candidates are encouraged to apply for this Position.

Will you consider applying for this position?
- Yes
- No

What percentage of increase in salary would you expect ?
- Not applicable (not applying)
- 5-10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- 50% or higher
- no increase

CASE STUDY 2:
Senior Position Role
Job Title: Chief Technological Officer
Location: India
Employment Type: Full-Time

About Us
Turtle Monkey is a gaming company committed to driving innovation and delivering cutting-edge solutions that redefine our industry. We are seeking a visionary Chief Technology Officer (CTO) to lead our technology strategy, foster innovation, and guide our talented engineering teams to new heights. Join us to shape the future of [company mission or industry focus].

Job Summary
The Chief Technology Officer (CTO) will serve as a key member of the executive leadership team, responsible for defining and executing the company's technology vision and strategy. This role will oversee all aspects of technology development, infrastructure, and innovation, ensuring alignment with business goals and market demands. The ideal candidate is a strategic thinker with deep technical expertise and proven leadership in scaling technology-driven organizations.

Key Responsibilities
Develop and implement a comprehensive technology strategy that aligns with the company's business objectives and drives growth. Lead, mentor, and inspire a high-performing team of engineers, developers, and IT professionals to deliver innovative solutions. Oversee the design, development, and deployment of scalable, secure, and efficient technology platforms and systems. Drive innovation by identifying emerging technologies, trends, and opportunities to enhance product offerings and operational efficiency. Collaborate with cross-functional teams, including product, marketing, and

operations, to ensure technology solutions meet customer and business needs. Establish and maintain robust cybersecurity protocols, data privacy standards, and compliance with industry regulations. Manage technology budgets, vendor relationships, and strategic partnerships to optimize resources and outcomes. Provide technical guidance and thought leadership to the executive team and board of directors. Monitor and report on key performance indicators (KPIs) related to technology performance, reliability, and innovation.

Qualifications:
A Master's degree in Computer Science, Engineering, or a related field (advanced degrees or MBA preferred). 10+ years of experience in technology leadership roles, with at least 5 years in a senior executive position (e.g., CTO, VP of Engineering). Proven track record of developing and executing technology strategies in a fast-paced, high- growth environment. Deep expertise in software development, cloud infrastructure, and modern tech stacks (e.g., [specify relevant technologies, such as AWS, Kubernetes, AI/ML, etc.]). Exceptional leadership and team-building skills, with experience managing diverse, cross-functional teams. Strategic mindset with the ability to translate business goals into actionable technology initiatives. Excellent communication and stakeholder management skills, with experience presenting to boards, investors, and external partners. Experience in [industry-specific context, e.g., SaaS, fintech, e-commerce] is highly desirable. Entrepreneurial spirit, with a passion for innovation and driving organizational change.

What We Offer
A pivotal leadership role with the opportunity to shape the future of a growing organization. Competitive compensation package, including equity options and performance-based incentives. Comprehensive benefits, including health, dental, vision, and retirement plans. Flexible work arrangements, with options for hybrid or remote work. A collaborative, inclusive culture that values innovation, diversity, and impact. Access to professional development opportunities and executive networks.

How to Apply
If you are a visionary technology leader ready to drive Turtle Monkey's mission forward, we want to hear from you! Please submit your resume, a cover letter outlining your vision for this role, and any relevant portfolio or case studies to abc@gmail.com. Turtle Monkey is committed to fostering a diverse and inclusive workplace and encourage applications from all qualified candidates. Women candidates are encouraged to apply for this position.

Would you consider applying?
- Yes
- No

What percentage of increase in salary would you expect?
- Not applicable (not applying)
- 5-10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- 50% or higher
- no increase