# A Study of the Impact of Artificial Intelligence on Jobs in the Banking Sector in the Mumbai Region

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#### ABSTRACT

"Artificial Intelligence (AI) is not newfangled to India. Research establishments and academes have been occupied with various AI savvies for decades, and exclusively in expanse of social renovation. AI, frequently discussed to as device acumen sporadically, is recreation of human brainpower in apparatuses. AI is mockup of human astuteness that supports in elaboration of well processers that can bring out human chores in logical modus. Akin to hominid head, AI can assume and agree extra truthfully founded on material delivered to it. In up-to-date nation, artificial intelligence is presently attractive added ubiquitous. Age of AI spreads spine to 1950s, once Alan Turing emitted paper on capacity for tackles with factual acumen, still if we have lone newly observed its execution. "93% investors in India assumed they gradually utilize facts to vigor critical and programmed decision-making. For AI, lending currently incorporates entire novel space of modern banks relatively than just bodily places. Contemporary banks' delivery of original banking amenities benefits in their enlargement and evolution. The intentions of research paper are: 1. To analyse the role of artificial intelligence in the banking sector in the Mumbai region. 2. To review the impact of artificial intelligence on jobs in the banking sector in the Mumbai region. Researcher premeditated suppositions to analysis the data: H1: Artificial Intelligence plays a vital role in the banking sector of Mumbai Region. H2: Jobs in the banking sector of Mumbai Region have been reduced due to AI. Kerbs of study were period and currency. Data was amassed from 50 respondents. Convenience sampling technique was used. Statistics was collected through Google form. It was settled that AI has main effect on works in investment quarter of Mumbai area.

Keywords: AI, Career Planning, Digital banking, Machine Learning and Internet of Things.

#### 1. INTRODUCTION

AI savvies for decades, and exclusively in expanse of social renovation. AI, frequently discussed to as device acumen sporadically, is recreation of human brainpower in apparatuses. AI is mockup of human astuteness that supports in elaboration of well processers that can bring out human chores in logical modus. Akin to hominid head, AI can assume and agree extra truthfully founded on material delivered to it. In up-to-date nation, artificial intelligence is presently attractive added ubiquitous. Age of AI spreads spine to 1950s, once Alan Turing emitted paper on capacity for tackles with factual acumen, still if we have lone newly observed its execution. "93% investors in India assumed they gradually utilize facts to vigor critical and programmed decision-making. However, 77% Indian investors approve that greatest businesses are not equipped to tackle looming surfs of dishonored visions from fabricated facts," said report. India is second-largest nation in expressions of populace in globe next China. Country's wealth principally depend on robust monetary structure aiding to development of every segment in state. AI is now stating critical effect on human lifespan, converting everything from how we reside and function. Artificial intelligence has possible to notice scams, lessen inexact dangers, and aid achieve controlling obedience. This article will let you drive across highest Indian banks that are utilizing AI and how are they profiting from it. According to Accenture's recent Accenture Banking Technology Vision 2018 report, 83% of Indian bankers consider that AI will toil together with persons in following two years — greater than worldwide middling of 79%. AI is currently developing conventional, with big ventures and start-ups observing at dissimilar chances. Our study displays that approval of AI has possible to enhance closely \$1 trillion to Indian market in 2035. Nevertheless decay in bank employments underway even earlier digital surge stroke banking

Indian banks engaged closely 13 lakh people at end of March 2015, out of which state-run banks only hire nearly 8.6 lakh persons, whereas private segment banks hired 3.2 lakh individuals, measly evolution of 3 per

cent above March 2014, and facts from RBI displays.

#### 2. REVIEW OF LITERATURE

Raviprolu (2017) straight deliberates part of AI inside Human Resources (HR) and admits that there are numeral fences to acceptance at this phase, primarily AI entails fat sum of figures that is too exact, these facts sets are extremely multipart to effectually comprehend thinking of entrants. King et al (2017) conveys vision into probable commercial bearing and blatant skills of AI know-hows. King et al (2017) reflects impression of Deep Learning, quoting item acknowledgment, natural language processing (NLP) and machine hallucination as crucial machineries. Not only are apparatuses competent to handle facts sets sooner but they can mark shapes in great numbers adjusts that cannot be linked by humans. Typical issues are self-driving wagons, political management by AI applications, independent weapon structures, facial acknowledgment, algorithmic judgment, informal bots, social arrangement by position processes, and many more (Hagendorff 2019).

#### 3. OBJECTIVES

- 1. To analyse the role of artificial intelligence in the banking sector in the Mumbai region.
- 2. To review the impact of artificial intelligence on jobs in the banking sector in the Mumbai region.

#### 4. Hypotheses

- 1. Artificial Intelligence plays a vital role in the banking sector of Mumbai Region.
- 2. Jobs in the banking sector of Mumbai Region have been reduced due to AI.

#### 5. RESEARCH METHODOLOGY

Research professor had planned survey. Primary data was composed by google forms from diverse respondents of Mumbai central, Mumbai western and Mumbai Harbour. Facts were amassed from 50 respondents. Convenience sampling method was applied to pleat numbers.

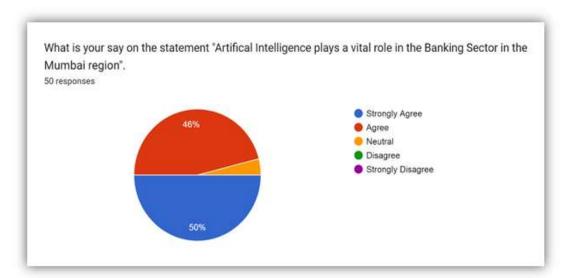
Secondary data was accumulated from records, journals and research articles.

Diagrams, charts and Z Test were recycled to assay data.

# 6. Data Analysis and Interpretation

#### Hypothesis 1

- 1. Artificial Intelligence plays a vital role in the banking sector of Mumbai Region.
- H0: There is no significant difference between male and Female Group.
- H1: There is significant difference between male and Female Group



| z-Test: Two Sample for Means |       |        |
|------------------------------|-------|--------|
|                              | Male  | Female |
| Mean                         | 1.55  | 1.45   |
| Known Variance               | 0.37  | 0.37   |
| Observations                 | 20.00 | 20     |

| Hypothesized Mean Difference | 0.00 |  |
|------------------------------|------|--|
| Z                            | 0.52 |  |
| $P(Z \le z)$ one-tail        | 0.30 |  |
| z Critical one-tail          | 1.64 |  |
| $P(Z \le z)$ two-tail        | 0.60 |  |
| z Critical two-tail          | 1.96 |  |

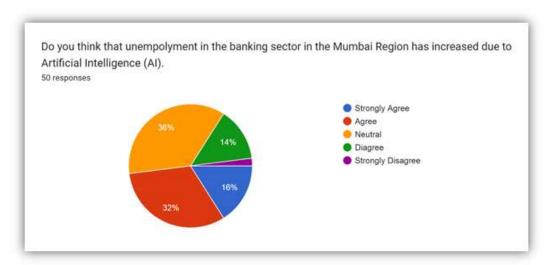
Null Hypothesis is failed to reject as Z score 0.52 is less than Z Critical Score of 1.96 and P Value is also 0.30 which is more than 0.05. Hence, researcher concluded that Artificial Intelligence plays vital role in the banking sector of Mumbai Region.

#### Hypothesis 2

Jobs in the banking sector of Mumbai Region have been reduced due to AI.

H0:. There is no significant difference between male and Female Group.

H1:. There is significant difference between male and Female Group.



| z-Test: Two Sample for Means |       |        |
|------------------------------|-------|--------|
|                              |       |        |
|                              | Male  | Female |
| Mean                         | 2.80  | 2.65   |
| Known Variance               | 0.59  | 1.08   |
| Observations                 | 20.00 | 20     |
| Hypothesized Mean Difference | 0.00  |        |
| Z                            | 0.52  |        |
| $P(Z \le z)$ one-tail        | 0.30  |        |
| z Critical one-tail          | 1.64  |        |
| $P(Z \le z)$ two-tail        | 0.60  |        |
| z Critical two-tail          | 1.96  |        |

Null Hypothesis is failed to reject as Z score 0.52 is less than Z Critical Score of 1.96 and P Value is also 0.30 which is more than 0.05. Hence, researcher presumed that Jobs in the banking sector of Mumbai Region have been reduced due to AI.

#### 7. SCOPE OF THE STUDY

The purpose of education is to recognise impression of Artificial Intelligence on employments of banking area in Mumbai province. Study area of research topic was Mumbai central, Mumbai western and Mumbai Harbour.

# 8. Utility of the study

The research paper will be valuable to Government, Society, and Artificial Intelligence corporations. It will be advantageous to research erudite to perform advance enquiry.

# 9. LIMITATIONS OF THE STUDY

Limitations of education were time, dosh and secondary research data was amassed from scarce records and

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research papers due to lack of time. Primary data was composed merely from 50 respondents of Mumbai central, Mumbai western and Mumbai Harbour only.

#### 10. FINDINGS

i.96% respondents were settle with the statement that "Artificial Intelligence plays a vital role in the banking sector of Mumbai Region".

ii.84% respondents were extracting money from ATM.

iii.52% respondents were deposing money into ATM.

iv.88% respondents were shifting money via mobile app or internet banking.

v.72% respondents were verifying bank balance over SMS or dialling bank enquiry number.

vi.88% respondents were settled that they were operating virtual apps to fix banking transactions.

vii.44% respondents were approved that they were go to see bank to remove or credit money.

viii.38% respondents were visiting bank to revise pass book.

ix.62% respondents were using kiosk to renew pass book.

x.36% respondents were visiting bank to transmit money through DD, NEFT and RTGS.

xi.48% respondents were approved with statement that "unemployment in the banking sector in the Mumbai region has increased due to Artificial intelligence".

xii.76% respondents were contracted with statement that "Bank stations plays a vital role in banking sector by providing various services".

xiii.70% respondents were settled with statement that "Chatbots are designed by bank to simplify the interaction between humans and computers but it has enhanced unemployment in the banking sector".

xiv.28% respondents were answered that AI had helped in scam discovery.

# 11. CONCLUSION

AI is essential for the progress of the state and banking sector. It is the need of an hour. Though, it has firm snags. It does work promptly and easier. It may or has afflicted employment in the banking sector in mumbai region. It saves a lot of time.

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#### ARTICLE

Economics Times: "Threat of automation: Robotics and artificial intelligence to reduce job opportunities at top banks"- By Saloni Shukla.