

# IMPACT OF DIGITAL TRANSFORMATION ON EMPLOYMENT IN BANKING SECTOR

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**Abstract:** Digitalization is playing a vital role in shaping India's banking scenario. Digital transformation is directly influenced by the availability of Smartphone's and the wide availability of 3G and 4G networks. The effort of digitalization on the banking sector creates a furor among the workforce in both public and private sector banks. The target of this study is to analyze whether digital transformation of bank enhance the opportunity in banking sector or trim down the bank employment among banking workforce. To achieve the objective of study, researcher use secondary data from various articles, books, blogs, journals etc.,

**Index Terms :** Employment, Digitalization, Technology, Workforce

## 1. INTRODUCTION

With the advance process of technology, digitalization is rapidly changing the day to day living style of the people. In Parallel, digital transformations have also changed the organization design, hiring process and management of the employee. In these digital days anything can be purchased through smart phone in global level with rapid advances in automation and artificial intelligence technologies. In such digital society, banking sector has been passing through rapid transformation due to progressive economic reforms and fast pace technology. Digital banking provides end to end services to their customer through digital platforms like mobile, tablets and internet. Banks provide paperless, branchless, signature less services and added to it also offer 24\*7 services which help the customers to access the banking services even on bank holidays. This digitalization leads the furor among bank workforce in both private and public sector banks. The reason is quite simple, if all the day to day banking operations which includes voucher posting, accounting, consolidating the general ledger are done by digitalization then workforce are not required for such position especially clerical cadre, officers and middle level workforce so the bank staff are predicting loss of their job from their position. By taking this as a background the present was undertaken.

## 2. Objective of the study:

The main objectives of the study are:

- To explore the digitalization in banking sector.
- To analyze the trend in the employment opportunity in banks.

## 3 REVIEW OF LITERATURE:

The digital revolution is changing the business environment dramatically in that banking sector is no exception (S.Carbo-Valverd – 2017). The study revealed that human ability and skill have improved after the transformation of digitalization in business operations. The productivity of employee has been

increased by 30% to 40 % in the last few years. The necessity of new skill and talents has emerged in the all industrial sectors. On the other hand employment requirement of the organization have also improvised. At the same time now all industries prefer to hire the workforce who have in digital system and advanced technologies (Fitzgerald,kruschwiz,Boonet and Welch, 2014). The digitization has induced the employment opportunities in every business sector. The concept of online working introduced, employee can perform their job from their home itself on flexible hours (Heek, 2013). Shiv kumar bhasin (2017) says that State Bank of India has decided to make its humancapital fully digital by launching BYOD(Bring Your Own Device) it would facilitate workforce to work from anywhere on any device. Barkley, Albert (2017) found that the major impact of using digital technology system has created ease in the recruitment and selection of new human capital for the organization. Darvas and Wolff (2016) development of report on EU countries: France, Italy, Swedan, Germany, UK, Spain in all these countries, the number of high education jobs such as managers, engineers, and health professionals are growing, while the number of middle educated jobs such as clear, machine operators, assemblers, data entry are declining. Those jobs are replaced by digitalization. The quality of workforce also plays a vital role. Petropoulos (2018)

## Overview of digitization in Indian banking sector

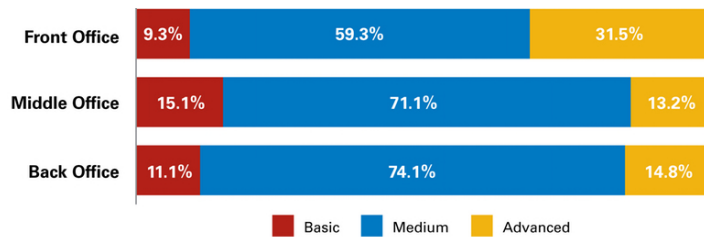
Digitalization is the method of storing, converting, transferring the information into recognized format by the computer. Banking sector has undergone dramatizes changes and improvement in the last few years. Digitalization means the adoption of cloud, social, mobile, big data technologies. In a digital society, people can access services whenever or wherever they want, According to the whitepaper report on information and communication, globally there are more than 4 billion people are using smart phone. The internet has enabled banking sector to increase the diversity of touch points from which they can connect. In past, the only connection between banks and customers is through physical channel such as branches. However the internet and mobile baking have widened theses point of contact. It allows customers to access the banking services whenever and wherever they want. The banks added innovative banking services such as ATM, credit card, debit card, online payment services, online investment, online demat, Electronic fund transfer, telephone banking, mobile banking, mobile application, wallet, internet banking to its wallet. This makes the customers highly sophisticated to

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get banking services such as checking balance, interest calculator, bill payment, mobile recharge, pension scheme etc., By implementing digitization, banks are providing enhanced customer services, provide convenience to customer and its saves time. Digitalization reduces human error and also builds customer loyalty. In recent days the banks are forced to invest heavily on digital technology to cope up with their competitors. Digitalization provides more way to reach potential customer, at the same time, help them to improve their services.

**4. THE CURRENT CONDITION OF DIGITIZATION:**

The world retail banking report published by Capgemini stated that 31.5% of the bank executives rated the digitization facility of their front office services are advanced , and less than 15% of bank executives rate their back office process as “advanced”.



**Fig. 1** Current condition of Digitization

Source: Banking on Digital future: A Guide to Digital Transformation in Banking, Kofax

Capgemini summarized the report on “Backing up the Digital Front: Digitizing the banking back office” that the majority of the banks have been focusing only on digitalizing the customer experience. In doing so, banks are missing a potentially opportunity to digitization of their back office operations.

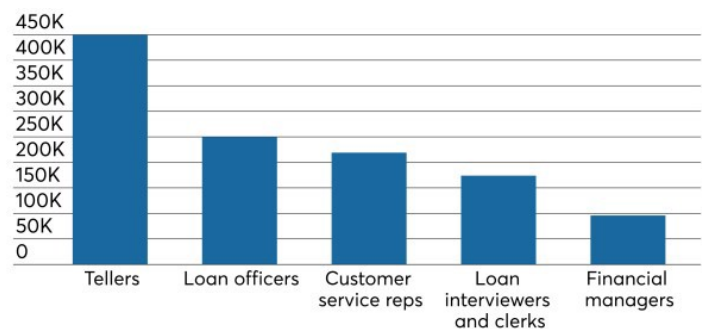
The info graphic regarding the impact of inefficiencies on customer’s experience, 60% of customer is dissatisfied about the sources in the back office and 10 – 20% of contact center volume create an execution issues in the back office. It is came to know that paper based process have high direct cost, and less ability to provide quick information



**Fig. 2:** The impact of inefficiencies on customers experience

Source: The impact of the current state of back office – Capgemini consulting

Digitalization advancement in front office is far exceeding from middle and back office. Banking sector enhance their digitalization only on customer oriented digital channels and they missed out the opportunities to enhance the overall customers experience, since manual and paper based processes are still widespread in middle and back offices. It can also create an impact on customers as there is a possibility of occurrence of error while processing manually.



**Fig.3** Missed Opportunities

Source: Penny Crosman American Banker

From the above figure, It is inferred that in banking sector, 70% of front office jobs are displaced by Artificial Intelligence (AI), 4,85,000 tellers,174000 loan officers, 219000 customer service representatives and clerk are replaced by chatbots, voice assistant and automated authentication and biometric technology. 96,000 finance manger and compliance officers are laid off due to Artificial Intelligence based anti money laundering and anti fraud.

### 5. CHANGED JOB SCENARIO IN BANKING SECTOR (2022)

Fig.3 depict the changed job scenario in banking sector, there will be 12.5 to 13 percentage of launch of digital product and services which will drive growth in banking sector. With the rapid growth of digitalization in banking sector, industry experts anticipate at least a 15% increase in hiring. 25% of jobs were in danger stage. 0.22 millions of jobs were created in last five years, totally there are 1.46 million jobs were created. Due to digitalization there are 15 to 20% of new job role and 55 to 60% of job has no change in existing in role.



Fig.4 Changed job scenario in Banking sector (2022)

Source: Future of jobs in India

### 6. THREATENED JOBS

With the proliferation of digitalization, banking operations such as fund transfer, account opening, bill payment, getting account statement, getting ATM card, debit card, credit card, cheque book, loan details etc., can be performed without visiting bank branches. The influence of digitalization in banking sector has potential to reduce human intervention and make most of the job redundant. This leads the bank workforce to dread about their job threat, the reason behind their furor was the day to day banking operation such as passbook updating, cash deposit, verification of know your customers details, salary uploads, can be done without dependency of workforce at the branches. Banking sector moves towards advanced technological developments, growing use of digitalization had created threat nearly 20 – 25 percent jobs in banking sector. The significant factor contributing to routine nature of jobs that require less and threatened positions are Data entry, Data verification, Teller, Cashier and Underwriter.

Sub-sector	Expected size of sector in 2022 (billions INR)	Expected % growth in sector	Current jobs in sector (millions)	% of current sector jobs threatened	Incremental jobs created over 5 years (millions)	Total jobs in 2022 (millions)	% of 2022 jobs that will be new	% of 2022 jobs that will be changed
Banking		12.5-13	1.24	20-25	0.22	1.46	15-20	55-60

Fig.5 Threatened jobs

Source: Future of jobs in India

### 7. CHANGING JOB ROLES IN BANKING SECTOR

The growth of digitization provides assurance for arrival of new set of job opportunities. Digitalization allows the banks to

increase their efficiency and enhancing customer experience while reducing operational cost, helps in process improvement and assisted the management in providing timely data for decision making. The changing job roles are loan associate into investment fund manager, sales associate into sales specialist, customer associate into issue redressal specialist, and chief technology officer into chief digital officer.

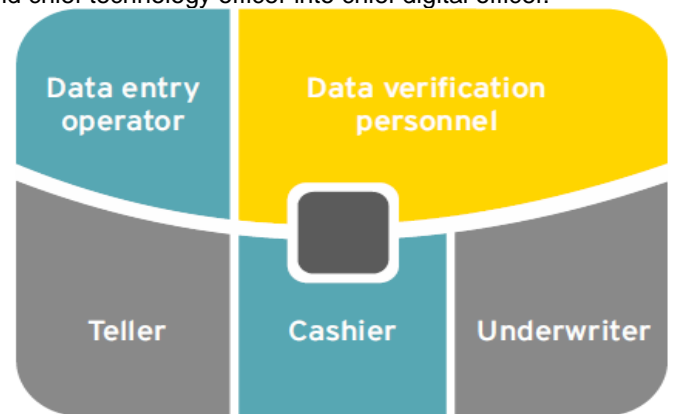


Fig.6 Changing job roles in banking sector

Source: Future of jobs in India

According to PwC report 2017, 32 percent of jobs in the banking sector could be rendered obsolete due to advancement in automation and artificial intelligence. But it turns way from such negative statement. Automation represents an opportunities to reduce the burden on banking professionals around the traditional activities such as transaction processing, audit, compliance. The financial inclusion and new banking license have created number of job opportunities in the banking sector. The digital transformation has reduced the customer foot prints at the branch and there was no reduction in the staff strength. As a result of extensive utilization of automation and self serviced technology, we can see the bank branch with minimum number of workforce in counters. The emphasis on transaction related business will reduce, banks workforce which in turn can utilize more time for customer services, cross selling product and services, provide more personalized service, act as consultant to their customer. Digitalization will introduce some new role in banking sector which including cyber security specialist, credit analyst, robot programmer, block chain architect and process modeler expert.

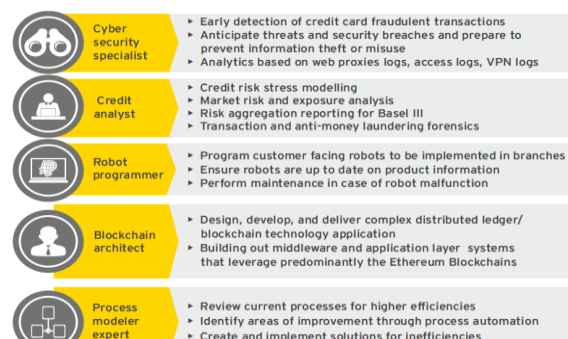


Fig.7 New roles in banking sector

Source: Future of jobs in India

## 8. REQUIRED KEY SKILLS FOR NEW JOB ROLES:

Digital technology trends are bringing about an unprecedented relate of change in the core skills. Workforces are necessary to have key skills to work with digital role in banking sector such as cognitive ability, physical ability, content skills, process skills, complex problem solving skills, Resource management skills, and social skills. These skills helps the employees to work with data and make data based decisions which will become increasingly vital skills across many job positions.

New jobs	Key skills	Cognitive abilities	Physical abilities	Content skills	Process skills	Complex problem solving skills	Resource management skills	Social skills	System thinking	IT / hardware skills	Environment conscious training
		Cyber security specialist	✓			✓	✓			✓	✓
Credit analyst	✓		✓	✓	✓			✓	✓		
Robot programmer	✓				✓	✓				✓	
Blockchain architect	✓					✓				✓	
Process modeler expert	✓				✓	✓		✓	✓		

**Fig.8** Required key skills for new job roles

Source: Future of jobs in India

## 9. RE-SKILLING THE EMPLOYEE:

Due to advances of technology, a lot of repetitive, routine jobs such like data entry are done through computers. Therefore banking sector should concentrate on reskilling employees who will be mostly impacted by analytics and automation, so employees need to upgrade their skill. The skills necessary to work with AI and automation are human skills such as active listening, critical thinking and social perceptiveness, data interpretation. Royal bank of Canada has called for a national review of college program to ensure focus on "human skill" among college students. Banking sector will seek the employee with well equipped digital skills. In order to cope up with the need the Yes bank is giving training to their existing employees to re skill them and in addition to that they are also hiring the candidates more with technology backgrounds.

## 10. CONCLUSION:

The changing habits of consumers are demanding new way to use financial services. In addition, banks are concentrated on promoting their band, product and services through digital channels. The increase of automation in the banking sector could lead to a massive trend of unemployment for bank workforce because digital technologies could perform the work without depending staff at physical branch and it performs the work at cheaper cost. Workforce opined that technological advance are made, lead to a fall in demand for human workforce in banking sector. The role of human workforce is not outdated, employee work along with robot or digitalization to achieve a combined goal efficiently and effectively which in turn improve the profitability and at the same time reduce the cost and manual errors. Banking sector have an incredible employment opportunity to drive forward digital transformation. Employer need to empower all employees to play their part in developing and implementing new ways of working.

Employers need to ensure that they are equipping the workforce with the right skill, as well as investing in the right talent. Due to digital transformation, some current job will be taken over by AI, more jobs will be created. Banking sector will provide huge opportunity in technology related jobs such as cyber security specialist, credit analyst, robot programmer, block chain architect and process modeler expert, and delivery mangers will be more in demand. Thus employers need to upgrade their skills to appreciate the role of analytics in each banking function. Banking sector will hire the candidate with required skill set. IT Professional may have an edge here and they may have far future in banking sector. Digital transformation of the banking sector will enhance the quality of the human resources through various skill sets. So in real term the banks will recruit well qualified personal to meet the day to day requirement of the banking sector.

## REFERENCES

- [1] Barkley, Albert. (2017). Digitization - An Impact on the Employment. 10.13140/RG.2.2.17264.76805.
- [2] Capgemini Backing up the Digital Front: Digitizing the Banking Back Office [https://www.capgemini.com/wpcontent/uploads/2017/07/backing\\_up\\_the\\_digital\\_front25\\_11\\_0.pdf](https://www.capgemini.com/wpcontent/uploads/2017/07/backing_up_the_digital_front25_11_0.pdf)
- [3] Carbó-Valverde, Santiago. "The impact on digitalization on banking and financial stability." Journal of Financial Management, Markets and Institutions 1 (2017): 133-140.
- [4] Darvas, Z. and G. B. Wolff (2016), An Anatomy of Inclusive Growth in Europe, Brussels: Bruegel, <http://bruegel.org/2016/10/an-anatomy-of-inclusive-growth-in-europe/>
- [5] Fitzgerald, M., Kruschwitz, N., Bonnet, D., and Welch, M. (2014). Embracing digital technology: A new strategic imperative. MIT sloan management review, 55(2), 1.
- [6] Future jobs in India A 2022 perspective by Nasscom and FICCI (2017) [http://ficci.in/spdocument/22951/FICCI-NASSCOM-EY-Report\\_Future-of-Jobs.pdf](http://ficci.in/spdocument/22951/FICCI-NASSCOM-EY-Report_Future-of-Jobs.pdf)
- [7] Heeks, R., 2013. Information technology impact sourcing. Communications of the ACM, 56(12), pp.22-25
- [8] Petropoulos, G. (2018). The impact of artificial intelligence on employment. Praise for Work in the Digital Age, 119.
- [9] Roy, Neha Chhabra, and T. Vishwanathan. "Workforce challenges in Indian banking scenario–Journey from identification till mitigation." Current Science 115.4 (2018): 739.
- [10] Roy, Neha Chhabra, and T. Viswanathan. "Impact of Technological Disruption on Workforce Challenges of Indian Banks-Identification, Assessment & Mitigation." (2018).
- [11] Reghunathan sukumara Pillai (2018) Workforce in the Digital World of Banking 2018 <https://www.finextra.com/blogposting/15137/workforce-in-the-digital-world-of-banking>
- [12] Roy, Neha Chhabra, and T. Vishwanathan. "Workforce challenges in Indian banking scenario–Journey from identification till mitigation." Current Science 115.4 (2018): 739.
- [13] Saloni Shukla (2017) Threat of automation: Robotics and artificial intelligence to reduce job opporutines at top banks <https://economictimes.indiatimes.com/industry/banking/finance/t-hreat-of-automation-robotics-and-artificial-intelligence-to-reduce-job-opportunities-at-top-banks/articleshow/58485250.cms>
- [14] Shiv Kumar Bhasin (2017) Digital Transformation of the Banks needs Digital workforce <https://www.linkedin.com/pulse/digital-transformation-bank-needs-workforce-shiv-kumar-bhasin/>
- [15] Penny Crosman (2018) How artificial intelligence is reshaping

jobs in banking <https://www.americanbanker.com/news/how-artificial-intelligence-is-reshaping-jobs-in-banking>

- [16] 2015 World Retail Banking Report–Capgemini [https://worldretailbankingreport.com/wp-content/uploads/sites/3/2018/09/World\\_Retail\\_Banking\\_Report\\_2018.pdf](https://worldretailbankingreport.com/wp-content/uploads/sites/3/2018/09/World_Retail_Banking_Report_2018.pdf)
- [17] New Job roles emerging in the banking sector for IT Professionals, 2016 <https://content.timesjobs.com/banking-sector/articleshow/63327807.cms>
- [18] Realizing the full value of AI in banking <https://www.accenture.com/us-en/insights/banking/future-workforce-banking-survey>