

# THE ROLE OF AUTOMATION ON EMPLOYMENT FUTURE IN THE UAE BANKING SECTOR

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## Abstract

*Today, automation become part of the banking service all over the world. The banks in the United Arab Emirates (UAE) rely on automation to enhance customer service in many ways, as well as enhance the communications with the clients and improve bank performance in the financial market. All these advancements motivate banks in the UAE to integrate automation technology into their present and future plans. Unfortunately, automation reduce the employment rate and increase the downsizing of workforce inside the banks. Based on this scenario, the aim of this study is to survey the banks in the UAE to identify how automation affected employment future and the performance of employees. The findings show that technological improvements in the banking sector through automation has attracted more clients to the banks but on contrary as the usage of automation has increased, so that the number of employees has been decreased and downsizing raised. Therefore, automation should be utilized in a way to preserve the employees of the bank and shift their role towards advanced banking tasks. The outcome of this study will provide an in-depth analysis about the reality of automation in the UAE banking sector. Hence, filling the gaps in the body knowledge with respect to the impact of automation on the future of employment in UAE's banking industry.*

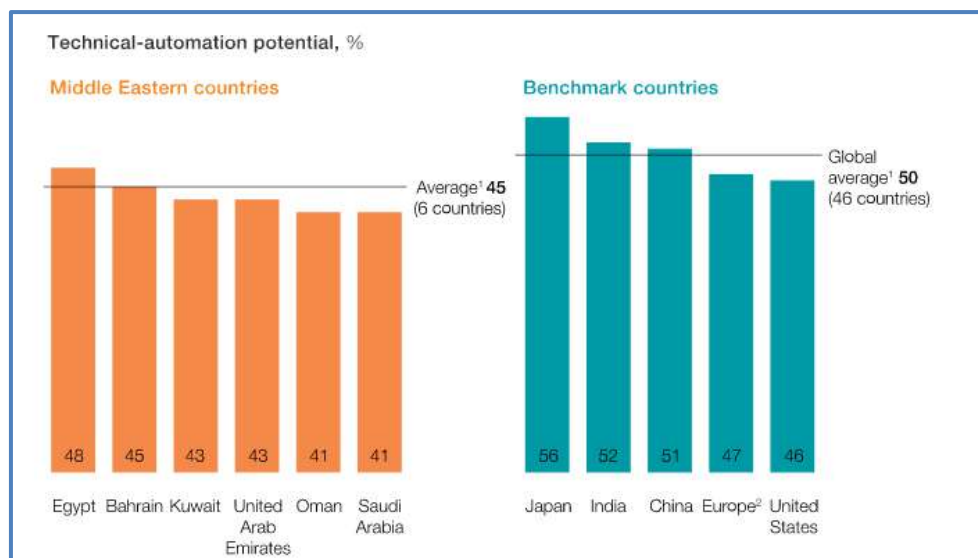
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## INTRODUCTION

Today, automation become part of banking service all over the world. Whereas the banks of UAE are not an exemption and become increasingly depending on automation to enhance customer service, as well as receive feedbacks via automated methods to improve their performance in the financial market. At present the automation methods have accelerated post the pandemic as the customers have been relying more mobile apps for the banking and they prefer automated experiences because they have to wait less (Glover, 2021). Automation is defined as getting the work done automatically with the help of AI and machines. Moreover, automation in the banking service could be defined as the application and establishment of technologies for delivering the banking services with minimum human intervention. Implementing automation technologies in banks improves the reliability, productivity, and efficiency of the banks. The process of automation in banking sectors speeds up the tasks. It completes them in minimum time earlier, which were done by humans and were a time-consuming process. However previously there were

less usage of automated in the banks because people were not reliable on online automated processes for their financial measures. Much pressure was put forward into human tasks and human efforts that led to occurrence of errors.

The literatures reveal that the implementation of automation in the banking industry has enhanced the overall performance of banks. The first automation in the financial sector was the establishment of the Automatic Teller Machine (ATM). The establishment of ATMs in the banking industry made the withdrawal of money easy for the consumers, and it also reduced the work pressure from the employees. The use of ATMs in the banking sector reduced the long queues of customers in banks, thus reducing the stress and burden from the employees. Moreover, the establishment of ATMs in the banking industry also enhanced the customer services like ATM's work 24/7, 365 days. Thus, the use of automation in the banking sector helped them provide their customers with improved services and reduced the burden from employees, which improved employee productivity. After establishing the ATM, the banking industry has continuously looked forward to improving its performance by adopting new and advanced technologies in the banking sector. Automation in the banking sector was spreading very fast in the last decades in Middle East nations comparing to benchmark countries in the world. The technical potential in the middle east is similar to global average, with notable variation among countries as shown in Figure 1.



**Figure 1: Automated potential in Middle East and benchmark countries**

The use of automation in the banking sector not only reduces the work burden of employees but also reduces the operational expenses of the banks and provides quality services to end-users with minimum error and fraud. The banking industry has also launched e-banking and mobile banking process; this allows the customers to

have easy access to bank services. All this advancement and use of automation technology in the banking industry have improved the overall performance of the banks. Some of the studies predict that by the end of 2030 the future of automation will accelerate with 45% of the existing working methods in the Middle East. Out of the six middle Eastern countries, \$366.6 billion in wage income and 20.8 million full time employees have been examined that prefer automated services. The IT budget of NBF has increased to a compounded annual rate of 30% which explains that the operational efficiencies have increased (Moore et al., 2018).

### **THE AIM OF STUDY**

This research will provide a detailed idea about automation in the banking sector of UAE and its impact on future employment. Despite all the advancements and the integration of automation technology to become part of the banking service have improved the overall performance of the banks, but automation reduces the employment rate and increase the downsizing the workforce inside banks and other financial institutions. In the scenario, this study will survey the banks in the UAE to identify the extent that automation has affected the employment as well as the performance of banks' staff. Moreover, this research discusses the implementation of automation in the banking sector and how it has evaluated the work performance of banks. The researcher study will provide an in-depth idea about the importance and use of automation in the banking sector. Hence going through the research will give explicit knowledge about the implementation of automation in the banking sector and its impact on the employee's productivity and future employment. The studies from the previous researches provide ideas about the automation impact on the banking sector, as well as the benefits of automation in the banking sector and how it enhances the overall performance of the bank and the employees. However, a gap remains on the studies as the articles doesn't provide idea about the impact of automation on future employment opportunities; therefore this research tries to find out the automation impact on the future employment in banking sector.

### **THE CHALLENGES OF AUTOMATION IN BANKS**

The advancement in technology and the improved services of the banking sector by the implementation of automatic technology has increased the demand for automation. The banking sector is looking forward to implementing more AI and automation in different sectors of the bank as it enhances the overall performance of the bank and reduces operational expenses. But the challenge of implementation continues due to lots of factors such as lack of expertise and sufficient resources. Over the last few years, the use of automation has helped many banks to improve their overall performance, as the use of automation completes the work faster with minimum errors and fraud. Most of the banks throughout the world are implementing automation to improve their efficiency. However, an increase in the demand for automation has created fear and stress among the employees. More than 40%

customers across the UAE use smartphones to manage their bank accounts in 2020 and the rate is estimated to reach to 70% in upcoming 5 years. According to the analyst bank-customers would only visit their bank two-times in a year. As an outcome of this, approximately 1000 branches of some major UAE banks are closed or planning to be closed in future (Gulfnews, 2021).

Moreover, it is found that the use of automation in banks will enhance the performance of the bank and will reduce employee burden, but on the other hand, the employees are worried that an increase in the use of automation will reduce the employment opportunity and will take over jobs. This is also evidence from an article published in Forbes, reflecting that the usage of automation in banking sector like using Chatbots, AI-powered system has reduced the necessity of human labor. Chatbot adoption rate has grown from 4% to 13% in the year 2020 and banks are saving up to 30% related to customer support cost. This creates high threat of job insecurity to the employees (Forbes, 2021). This research will try to find out the impact of automation on the future employment of UAE banks.

Digitalization, according to Fuei (2017), is predicted to drastically alter the types of jobs that will be required in the future. The technique and preliminary data in Frey and Osborne's research note are used to analyze the susceptibility of jobs in Singapore to computerization and automation. They discovered that nearly a quarter of Singaporean jobs are at high risk of being computerized. As a result, the country has one of the lowest shares of high-risk jobs in the world. A considerable number of workers in this high-risk category have non-tertiary educational credentials and are older people, making them less likely to be re-employed if they lose their jobs. In brief, the banking industry throughout the world is adopting the process of automation to improve their overall work performance. Adopting automation in banking sectors has helped the banks to reduce their overall cost and improve customer satisfaction. It has also been found that with advancements in technology, the banking sector is looking forward to adopting more automation processes in the sector. On the other hand, it is being found that with an increase in the use of automation, the stress of the bank employees has increased as they think automation will take over their job. Hence this research will find out that how the process of automation will affect future employment.

## **AUTOMATION IN MIDDLE EAST BANKS**

Automation in the banking sector is not a new phenomenon. Haralayya (2021) threw light on the concept of automation in banking sector by mentioning that, for relatively a few times, the usage of technology innovations in the banks and financial system has been a worldwide trend, with industrialized and emerging economies adopting it (Haralayya, 2021). In contemporary years, the Gulf Eastern business and insurance sector has adapted rapidly to technical advancement, which has helped bank consumers and financial provisions apply by lowering the price of operations (Bandara et al., 2019). Sophia (2018) added by saying, technological advancements in

commercial banks have enhanced local bank revenue by lowering payment processing costs and other fees (Sophia, 2018).

Ajayi (2018) stated that the UAE's financial services industry has grown to become among the biggest competition in the continent, as well as the Middle East's main financial center. 'Digital upheaval,' 'integration,' and 'digital finance' have all been thrown at the business (Ajayi, 2018). Similarly, the author Lu et al. (2020) mentioned that increased banking productivity, recruiting and maintaining consumers, enhancing statistics, launching novel solutions, and boosting customer satisfaction are all significant motivations for digitalization, in addition to the competition (Lu et al., 2020). As mentioned by Shirish, and others (2016), customers can benefit from more harmonized and modernized services if technological innovations work with the financial sector. It is a continuous procedure that delivers challenging prospects in the sector to the forefront (Shirish, Jayantilal, & Haimari, 2016). Similarly, John (2017) agreed by stating that, strong customer adaptation, as according, is the key cause for better acceptability of technology developments in the monetary industry of Middle Eastern nations given the widespread use of e-commerce, electronic commerce is used by 20% - 25% of customers (John, 2017). This is a substantial percentage given the scarcity of critical technological assets and security requirements. However, according to Dash (2017), the UAE's commercial banks is a pioneer in supporting new technology advancements, with banks like Emirates NBD, First Arab Bank, and Dubai Islamic Bank leading the way in delivering digital financing services (Dash, 2017).

## **IMPACT OF AUTOMATION ON THE BANKING SECTOR**

As mentioned by the authors Sardana et al. (2018) Artificial Technology adaptation in the financial field has several advantages and disadvantages, on which many researchers have provided their meaningful opinions. For example, Manning (2018) in his findings stated that, AI adoption has the potential to enable and speed the digitization of all banks' procedures. As a result, there are fewer opportunities for operator error. It has the potential to lower the expense of banking activities dramatically (Manning, 2018). It can help methodically analyze client behavior patterns and provide customized solutions to meet their requirements. Artificial intelligence technologies that use deep intelligence can recognize irregularity patterns and respond to security concerns in real-time (Sardana & Singhania, 2018). In this context, findings of Yarlagadda (2018) are mentionable that says, adopting artificial knowledge in daily operations is detrimental to all banking operations. There will be no oversight if the operation is entirely automated. It is incapable of making choices under unusual scenarios. In order to create a secure robotic environment, additional security measures are required (Yarlagadda, 2018). Likewise, Meena and Parimalarani (2020) supported these findings by stating that various electronic finance consumers in the UAE nevertheless do not feel secure since some believe that perhaps the solution for electronic banking has not been adequately deployed and linked into the

institutions' security structure to guarantee flawless breaches (Meena & Parimalarani, 2020).

In the same context, Mason (2021) argued that automation, or the practice of employing computers to better the labor process, i.e., enhancing the amount and quality of work by means of computer-controlled equipment, and it is driving the present wave of technological development. Automation has had and will continue to have a variety of economic effects on different social groups, changing racial and gender disparities. Increases in automation are linked to rising labor income inequality and widening racial and gender disparities in employment. Male jobs are more likely to be affected by technological unemployment than female jobs. Within each racial group, high density male employment is more likely to be automated (and have a lower likelihood of future demand) than high density female jobs.

Suhel et al. (2020) added more by reflecting that around 39% of Emirates electronic bank users are still unsure about the safety quality of utilizing the bank's webpage and applications for the transactions. As a result, clients may be forced to quit a bank that does not prioritize protection and ease (Suhel et al., 2020). In order to address digital banking safety issues, a defined and defined method must be devised that does not interfere with or remove the conveniences it provides to consumers. The UAE adopted the most robust economy in the Gulf Region, making digital payment a must (Ugwuanyi et al., 2021). The view of Winasis et al. (2020) seems to be interesting also, as they mentioned, in the people in the UAE who are using digital transactions is raising. People who utilize online banking or e-banking have generally had a specific attitude toward it, notably in terms of interoperability, safety, complexity, and confidence, among other things. Nonetheless, it is crucial to note that the development of e-banking inside the UAE has still not resulted in the abolition of physical banking since both remain side by side (Winasis et al., 2020).

## **IMPACT OF AUTOMATION ON THE FUTURE OF EMPLOYMENT IN THE BANKING SECTOR**

Several studies in the past showed that automation has a significant impact of the employment rate and the future of employment in the banking industry. According to, Anbalagan (2017) there are technological forces will drastically alter the future of employment, resulting in a significant decline in the conventional organization interaction. The new platforms enable commercial engagement to be arranged in methods that move much of whatever was formerly done by full-time employees within a company to a multitude of sole proprietors as well as on labor. Consequently, the industry is mainly reliant on short-term freelancing partnerships instead of job growth (Anbalagan, 2017). Furthermore, Nissim and Simon (2021) added that simultaneously, machine intelligence and mechatronics techniques are improving the perceptual and physiological tasks that make up most of today's modern work, paving the way for the automated processes of complicated human operations such as propelling a car or having to manage a proposal and interrupting a variety of

professions such as legislation, advising retail outlets, and mass transit (Nissim & Simon, 2021).

In the same domain, Carbonero et al. (2020) denoted that, in scholarly and public debates, the influence of robots on employment and commerce is a hot topic. There are particular fears that, as the labor cost advantage in emerging countries erodes, automation may pose a danger to jobs. They present data on the impact of robotics on global employment, especially emerging nations. To track the employment of robots, we created a technical advancement index, which measures a robot's ability to do various tasks. Robots are proving to have a major negative impact on global employment. While it is minor in wealthy countries, it accounts for -11 percent in emerging economies between 2005 and 2014. However, there appear to be positive spillovers from manufacturing robotization on employment outside of manufacturing.

Likewise, Katz et al. (2021) build on the literature on labor implications of technological disruptions by providing a complete assessment of recent research on the projected effects of automation on employment levels, as well as a variety of empirical methodologies to estimate the effects for an emerging economy. To demonstrate the impact, the research uses Chile as a case study to present alternative empirical methodologies for estimating job gains and losses. The empirical findings imply that the number of jobs lost to automation technology presently equals the number of jobs created, resulting in a minor overall impact on the labor force. However, the new jobs necessitate a greater number of highly educated workers. As a result, the data point to potential social exclusionary consequences, as low-skilled, low-income workers are the most vulnerable groups facing a significant chance of losing their jobs. Active public policies must be devised and executed to mitigate these effects in order to achieve possible job benefits while limiting any negative effects on vulnerable and disadvantaged groups.

Sharma and Shrivastav (2021) examined the influence of automation on the mindsets of current employees and job searchers, to determine if automation has a positive or negative impact, and to determine whether automation will constitute a threat to upcoming jobs. The initial stage of research parallels was to create a questionnaire that addressed certain aspects of the study. According to the findings of their study, existing employees are less affected by automation than job seekers (employable mass). Job seekers are primarily concerned about employment since, while automation is currently restricted, it will soon replace industries with fully automated processes, resulting in job losses.

As mentioned by Sundararajan (2017), as fewer individuals earn a livelihood in the conventional sense, and so many, though not all, individuals change jobs multiple times throughout their career, the focus of learning must evolve as well (Sundararajan, 2017). Rather than relying just on two- or multiple tertiary institutes that educate students early in their careers, as society accomplished in the twentieth

century, civilization must develop robust academic institutions which assist employees in making mid-career changes (Ortaköy & Özsürünç, 2019). Furthermore, Vijai et al. (2020) added that in a period of greater personal entrepreneurs, the mostly employer-funded element of the public security net commonly comprises health coverage, paid vacation days, employment premiums, pension contributions, plus consistent paychecks that stabilize earnings—must have reconsidered (Vijai et al., 2020).

Lima et al. (2021) investigates the influence of automation on the Brazilian labor in order to provide knowledge to decision-makers. The authors applied the probability of computerization from Frey and Osborne's landmark work to each of Brazil's more than 2,500 jobs. They then compared the likelihood of automation to socioeconomic data on individuals and businesses accessible in the Brazilian Ministry of Labor Database. In the future decades, automation is predicted to affect 60 percent of employment in Brazil, with eight of the ten occupations with the largest workforce being highly automatable. The likelihood of workers becoming automated diminishes as their education level rises, with the greatest disparity between those with a higher education and those without. Other discrepancies in the impact of automation are revealed by the findings: the higher the income, the lower the possibility of vocations being automated; the larger the organization, the lower the automation index; and workers aged 16 to 24 have significantly higher risks of being automated.

## **THE IMPACT OF AUTOMATION ON EMPLOYEES' PERFORMANCE**

Automation has brought tremendous advantages to the banking service, but it is also affecting the workforce in this financial market. The precious studies show that how the implementation of automation in banking sector has reduced the work pressure from the employees. While discussing about physiological impact of automation on employees in the banking sector, the downsizing is another consequence of adopting automation in banking service. As per a report published by Wells Fargo, digitalization would result in the elimination of 200,000 bank employment over the next ten years because of automation. Anybody who works in or wants to join the sector should be concerned when they hear such horrific statistics. People frequently link the effects of robotics with blue-collar occupations, but they may miss its effect on white-collar jobs (Malali & Gopalakrishnan, 2020). To place this in context, 200k employment account for 13.3 per cent of the 1.5 m occupations expected to be sacrificed in the United States over the same time frame (Oxford Economics, 2019). The risk of automated technologies displacing present UAE employees with poor to moderate educational levels and skill is the greatest. The average technological mechanization potential for employees with a secondary school diploma or considerable relevant expertise is 55 per cent, compared to 50 per cent for those with lesser than a basic school diploma (Moore et al., 2018).

In this regard, Vermeulen and Kesselhu (2018) investigate the influence of automation on employment during the next decade, both at a global level and in

specific (types of) industries. To this end, they combined a multisectoral structural change evolutionary economic model with labor economic theory. They gain a complete understanding of how labor displacement in application sectors is balanced by intra- and intersectoral countervailing effects, and particularly scooped up by newly established, labor-intensive sectors. To specify where and how industries and occupations risk employment disruptions, we leverage various trustworthy datasets with expert estimates on employment in occupations affected by automation (and particularly by the advent of robotics and AI). Likewise, Zorob (2008) examined the effect of automation in improving the performance of personnel affairs administrations in Gaza's government ministries. The researcher used a descriptive analytical technique by conducting an all-encompassing survey of managers, vice presidents, and heads of departments who undertake various missions and activities related to people issues in government ministries. The findings of Zorob's study revealed that automation aids in the planning, selection, evaluation, and identification of human resource training needs in government ministries; In addition, they concluded the difficulties and roadblocks that may arise when automating personnel administrations. Finally, Anagnoste (2021) suggested that enterprises are transferring their workloads to software robots by using automation on the cloud, on-premise, or hybrid, changing existing operating models, reducing labor work. As the rate of technology progress accelerates and digitization pervades all jobs and industries, technical job-specific skills may fast become obsolete.

## **CONCLUSION**

The banking industry around the world is embracing automation to boost overall work performance. Adoption of automation in the banking sector has assisted banks in lowering overall costs and improving client satisfaction. It has also been discovered that with technological improvements, the banking sector is looking forward to embracing more automated procedures in the sector. On the other side, it has been discovered that as the usage of automation has increased, so has the tension of bank employees, who fear that automation will take away their jobs. As a result, the purpose of this study is to understand how the process of automation will affect future employment in UAE banking sector. In conclusion, while automation and digitalization on the workplace is likely to grow even more, automation is unlikely to cause a big shift in employment in the near future, government policy might support automation while also preparing the workers for the change to preserve their jobs by developing more skills in the banking tasks. Automation could be utilized to generate job growth by using other skills of employees in the coming years so that automation is likely to continue to create more jobs than it terminates, and occupational role change and job relocation both within and between sectors will accelerate.\

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