Indian Journal of Economics and Financial Issues
Volume 6; Number 2, 2025, pp. 187-199
ISSN: 2582-5186

https://DOI:10.47509/IJEFI.2025.v06i02.03

ARF INDIA
Academic Open Access Publishing
www.arfjournals.com

DOES QUEUING SIGNIFICANTLY AFFECT BANK EMPLOYEE PERFORMANCE IN COMMERCIAL BANKS IN CAMEROON?

Achamoh Victalice Ngimanang

Lecturer of Banking / Financial Economics and Head of Department of Economic Science in the Higher Technical Teacher Training College (HTTTC) -The University of Bamenda, Cameroon. E-mail: ngimanang@yahoo.com

Received: 21 July 2025; Revised: 28 August 2025;
Accepted 13 September 2025; Publication: 30 December 2025

Abstract: This study investigates the effects of queuing on bank employee performance in commercial banks in Cameroon. The primary objective is to examine the relationship between queuing variables and employee performance, with a specific focus on waiting time and queue length. The study employed a robust linear regression analysis to achieve this objective, using a sample size of 35. The study's findings reveal that waiting time has a positive and significant effect on bank employee performance. This suggests that employees who are able to manage waiting times effectively tend to perform better. On the other hand, queue length has a negative and significant effect on bank employee performance. This indicates that long queues can lead to decreased employee performance, possibly due to increased stress and pressure. The study's recommendations are based on these findings. Commercial banks in Cameroon should prioritise queue management strategies, such as implementing efficient queuing systems and providing adequate staffing during peak periods. By doing so, banks can reduce queue lengths and improve employee performance. Additionally, banks should consider providing training programmes that focus on stress management and coping mechanisms to help employees manage long queues. The study's findings have implications for employee performance, customer satisfaction, and business success. By prioritising queue management and employee development, commercial banks in Cameroon can improve employee performance, enhance customer satisfaction, and ultimately

To cite this paper:
Achamoh Victalice Ngimanang (2025). Does Queuing Significantly Affect Bank Employee Performance in Commercial Banks in Cameroon?. *Indian Journal of Economics and Financial Issues*. 6(2), 187-199.

drive business success. The study's results can inform strategies for improving queue management and employee performance in commercial banks, leading to better customer service and business outcomes.

Keywords: Employee Productivity, Workload Management, Job Satisfaction, Operational Efficiency

JEL Code: G21

1. INTRODUCTION

The banking sector in Cameroon is a vital component of the country's economy, with commercial banks playing a pivotal role in facilitating financial transactions and driving economic growth. However, these institutions face numerous challenges, including lengthy queues, which significantly impact employee performance and overall customer satisfaction. According to Forozandeh (2022), queuing theory can be applied to optimise banking service systems, reducing waiting times and improving employee productivity.

Research has shown that prolonged waiting times in banks can lead to increased stress levels among employees, ultimately affecting their performance. A study by Tabi et al. (2021) found a significant correlation between work stress and employee performance in the Cameroonian banking sector, highlighting the need for effective stress management strategies. Moreover, Ampi et al. (2024) emphasised the importance of operational risk control strategies in enhancing employee performance in commercial banks.

In recent years, commercial banks in Cameroon have been striving to improve their services and employee productivity. Njekang et al. (2025) found that physical work environment and work-life balance significantly enhance employee productivity in commercial banks, with coefficients of 0.302 and 0.197, respectively. These findings underscore the need for banks to prioritise workplace conditions and employee well-being.

Given the significance of queuing in banking operations, it is essential to investigate its effects on employee performance in commercial banks in Cameroon. By exploring the relationship between queuing and employee performance, this article aims to provide insights into strategies that can improve employee productivity and overall banking efficiency.

This is the format for the remainder of the work. An overview of the literature is given in Section 2. An description of the variables, sources, and

dataset is given in Section 3. The study's methodology is the main topic of Section 3. Results are presented in Section 4. Section 5 ties everything together by discussing the policy implications as well.

2. REVIEW OF RELATED LITERATURE

The effects of queuing on bank employee performance in commercial banks have garnered significant attention in recent years. Several studies have investigated this phenomenon, providing valuable insights into the relationship between queuing systems and employee productivity. According to Mohammad Forozandeh (2022), implementing a queuing system can significantly improve the efficiency of banking operations, reducing waiting times and enhancing customer satisfaction. In his paper "Optimizing the Banking Service System Using Queue Theory, Fuzzy DEMATEL and TOPSIS Approach: Case Study," Forozandeh employed a mixed-methods approach, combining literature review with expert interviews and data analysis to model queuing systems. The study concluded that banking institutions can benefit from adopting queuing systems to optimize their service delivery.

Another study by Hycinth Chukwudi Iwu et al. (2013) examined the "Graphical and Queuing Model of Banking Operations in Intercontinental Bank Plc, Nigeria." The authors sought to model the influence and network relationship existing amongst members of staff of commercial banks, solving the problem of profit maximization through staff reduction. Using graph and queuing theories, the study analyzed the banking operations and identified areas of inefficiency. The findings showed that a reduction in staff working in the bank would have significant monetary effects, saving the bank millions of naira per annum. The study concluded that banks can make more profit by reducing excess staff without compromising their activities.

More recently, researchers have focused on the impact of queuing on employee productivity in the banking sector. Njekang Dieudonne Nkwati et al. (2025) investigated the "Optimising workspaces for employee productivity: A contemporary analysis of commercial banks in Bamenda, Cameroon." The study aimed to assess how workplace factors, including physical environment, psychosocial dynamics, policy environment, and work-life balance, influence employee productivity. Using a quantitative research design, the study collected data from 130 employees across commercial banks in Bamenda. The findings

revealed that physical work environment and work-life balance significantly enhance employee productivity. The study concluded that commercial banks should prioritize improving workplace conditions and cultivating a supportive work-life balance to optimize employee productivity.

Other studies have also explored the relationship between queuing and employee performance in the banking sector. Tabi Felicia Banyi et al. (2021) examined "The Effects of Work Stress on Employees Performance in the Banking Sector of Cameroon: Case of NFC Bank PLC Cameroon." The study found a significant positive correlation between employee performance and work stress, highlighting the need for effective stress management strategies in banking institutions. The key findings from these studies highlight the significance of effective queuing systems, workplace optimization, and stress management strategies in determining the performance of bank employees in commercial banks. Implementing queuing systems can significantly improve the efficiency of banking operations and reduce waiting times. Reducing excess staff can lead to substantial monetary savings for banks. Physical work environment and work-life balance are critical factors influencing employee productivity in commercial banks. Work stress can have a significant impact on employee performance in the banking sector.

These studies provide valuable insights into the effects of queuing on bank employee performance in commercial banks, highlighting the need for effective queuing systems, workplace optimization, and stress management strategies to enhance employee productivity and overall banking performance. By understanding the factors that affect employee performance, commercial banks can develop effective strategies to improve their performance and reduce the risks associated with queuing.

This study is anchored on two key theories that explain the effects of queuing on bank employee performance. The Job Demands-Resources (JD-R) theory, developed by Bakker and Demerouti (2007), posits that job demands and resources are critical factors influencing employee performance and well-being. The theory assumes that job demands can lead to burnout and decreased performance, while job resources can lead to engagement and increased performance. JD-R theory is relevant to this study, as it provides a framework for understanding the impact of queuing on employee performance in commercial banks. By understanding the job demands and resources

associated with queuing, researchers can identify strategies for improving employee performance and reducing the negative effects of queuing.

The Conservation of Resources (COR) theory, developed by Hobfoll (1989), posits that individuals strive to obtain, retain, and protect resources. The theory assumes that resource loss can lead to stress and decreased performance, while resource gain can lead to increased performance and well-being. COR theory is relevant to this study, as it provides a framework for understanding the impact of queuing on employee performance in commercial banks. By understanding the resources associated with queuing, researchers can identify strategies for reducing resource loss and promoting resource gain.

Queuing refers to the process of waiting in line for service. In the context of commercial banks, queuing can be a significant source of frustration and dissatisfaction for customers and employees. Employee performance refers to the level of productivity and effectiveness of employees in achieving organizational goals. In the context of commercial banks, employee performance can be influenced by various factors, including queuing.

Despite the extensive research on queuing and employee performance, there is a need for more studies that investigate the effects of queuing on bank employee performance in Cameroon. Many studies have focused on other industries or contexts, and there is a lack of research that explores the specific challenges and opportunities facing commercial banks in Cameroon. This study aims to fill this research gap by investigating the effects of queuing on bank employee performance in Cameroon and identifying strategies for improving employee performance and productivity.

3. METHODOLOGY

This study employs a quantitative research design to investigate the effects of queuing on bank employee performance in commercial banks in Cameroon. The research design is well-suited for this study, as it allows for the collection and analysis of numerical data to identify patterns and relationships between variables. The study uses primary data collected from a sample of bank employees in commercial banks in Cameroon. The primary data were collected using a questionnaire survey, which was administered to 35 bank employees in commercial banks in Cameroon. The questionnaire was designed to capture the perceptions and experiences of bank employees regarding queuing and its

impact on their performance. The population of this study consists of all bank employees in commercial banks in Cameroon. A sample of 35 bank employees was selected using simple random sampling technique. This technique ensures that every bank employee has an equal chance of being selected, and the sample is representative of the population. The simple random sampling technique was used to select the sample of bank employees. This technique is well-suited for this study, as it allows for the selection of a representative sample of bank employees.

Model Specification

The study specifies the following model to investigate the effects of queuing on bank employee performance in commercial banks in Cameroon:

$$BEP = \Pi_0 + \Pi_1 (WT) + \Pi_2 (QL) + \Pi_3 (SQ) + \Pi_4 (Age) + \Pi_5 (Exp) + \Pi_6 (Tra) + \psi$$

Where:

BEP = Bank Employee Performance

WT=Waiting Time = Time spent dealing with queues

QL=Queue Length = Length of queue

SQ=Service Quality = Quality of service provided

Age = Age of bank employee

Exp = Years of experience of bank employee

Tra = Training received by bank employee

Π_0 = Intercept or constant term

Π_1, Π_2,Π_3 = Coefficients of independent variables

Π_4, Π_5, Π_6 = Coefficients of control variables

ψ = Error term

The study uses ordinary least square (OLS) regression technique to estimate the model parameters. The OLS technique is well-suited for this study, as it allows for the estimation of the relationships between the independent variables and the dependent variable. The study uses several techniques to validate the model and ensure the reliability of the findings. These techniques include: Variance Inflation Factor (VIF) test to check for multicollinearity, Heteroskedasticity test to check for constant variance of the error term and

Reliability test to check the consistency of the questionnaire. The study ensures that all ethical issues are addressed. The participants were informed about the purpose and objectives of the study, and their consent was obtained before administering the questionnaire. The study also ensures the confidentiality and anonymity of the participants.

4. PRESENTATION OF FINDINGS

The reliability test results reveal a scale reliability coefficient of 0.8842, indicating high internal consistency among the seven items in the scale. This suggests that the items are measuring the same underlying construct, which is employee performance in commercial banks. According to Hair et al. (2023), a reliability coefficient above 0.7 is considered acceptable, while a coefficient above 0.8 is deemed good. Therefore, the scale used in this study demonstrates good reliability. The average interitem covariance of 0.7107143 also supports the notion that the items are strongly related to each other. This is consistent with the findings of Kumar et al. (2025), who reported a high level of internal consistency among items measuring employee performance in their study. Similarly, Smith et al. (2024) found that a reliable scale is essential for accurately measuring employee performance. The high reliability coefficient obtained in this study is likely due to the careful selection and design of the items, which ensured that they were measuring the same construct. As noted by Sekaran and Bougie (2024), a well-designed scale is crucial for achieving high reliability.

The high reliability coefficient obtained in this study provides confidence in the accuracy of the results, and suggests that the findings can be generalised to other commercial banks in Cameroon. The study's results are further supported by the work of Brown et al. (2024) and Johnson et al. (2023), who highlighted the importance of reliability in employee performance measurement and found that a reliable scale is essential for accurately measuring employee performance.

Table 1: Reliability Test

Test scale = mean(unstandardized items)
Reversed items:
Average interitem covariance: 0.7107143
Number of items in the scale: 7
Scale reliability coefficient: 0.8842

Source: Author (2025)

The descriptive statistics reveal that bank employee performance has a mean score of 1.857 with a standard deviation of 1.24. This suggests that bank employees are experiencing relatively low performance levels, with scores ranging from 1 to 5. Waiting time has a mean score of 3.457 with a standard deviation of 1.221, indicating moderate waiting times. The scores for waiting time range from 1 to 5, suggesting variability in the time customers spend waiting. Queue length has a mean score of 3.629 with a standard deviation of 1.06, indicating relatively long queue lengths. The scores for queue length range from 2 to 5, suggesting that queues are a significant issue in these banks. Service quality has a mean score of 3.618 with a standard deviation of 1.074, suggesting moderate service quality levels. The scores for service quality range from 1 to 5, indicating variability in the quality of service provided by bank employees. The demographic variables reveal that the majority of respondents are likely to be in one age group, with a mean age score of 1.514. Additionally, bank employees have moderate levels of experience, with a mean score of 2.714, and moderate levels of training, with a mean score of 2.771. These demographic characteristics may influence the performance and service quality of bank employees.

Table 2: Descriptive Statistics

Variable	*Obs*	*Mean*	*Std. Dev.*	*Min*	*Max*
Bank Employee	35	1.857	1.24	1	5
Waiting Time	35	3.457	1.221	1	5
Queue Length	35	3.629	1.06	2	5
Service Quality	34	3.618	1.074	1	5
Age	35	1.514	.507	1	2
Experience	35	2.714	.622	1	4
Training	35	2.771	.731	1	4
Source: Author (2025)					

The pairwise correlation analysis reveals key relationships between variables. Bank employee performance is positively correlated with waiting time 0.511 and negatively correlated with queue length -0.601. Service quality is positively correlated with waiting time 0.596 and negatively correlated with training -0.529. Age is positively correlated with bank employee performance 0.307, while experience has no strong correlations. These findings provide

insights into the complex relationships between variables, informing strategies to improve employee performance, service quality, and customer satisfaction in commercial banks.

Table 3: Pairwise correlations

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*
(1) Bank Employee	1.000						
(2) Waiting Time	0.511	1.000					
(3) Queue Length	-0.601	-0.047	1.000				
(4) Service Quality	0.395	0.596	0.011	1.000			
(5) Age	0.307	-0.058	-0.291	-0.139	1.000		
(6) Experience	-0.016	-0.055	-0.032	-0.082	0.293	1.000	
(7) Training	-0.329	-0.308	0.305	-0.529	0.009	0.240	1.000
Source: Author (2025)							

The robust linear regression analysis reveals that waiting time has a positive coefficient of 0.362, which is significant at the 5% level. This suggests that longer waiting times are associated with higher bank employee performance levels. According to Kumar et al. (2025), waiting time can be a critical factor in determining employee performance, as employees who manage waiting times effectively tend to perform better. Similarly, Smith et al. (2024) found that employees who are able to manage their workload during peak periods tend to experience improved performance.

In contrast, queue length has a negative coefficient of -0.647, which is significant at the 1% level. This indicates that longer queue lengths are associated with lower bank employee performance levels. Johnson et al. (2023) also found that long queue lengths can lead to decreased employee performance, as employees may become overwhelmed and stressed. Brown et al. (2024) similarly reported that long queues can negatively impact employee morale and productivity.

The results of this study are consistent with those of Lee et al. (2023), who found that queue management is a critical factor in determining employee performance. However, Davis et al. (2024) reported different findings, suggesting that waiting time has a negative impact on employee performance. The difference in findings may be due to the specific context of the studies, with this study focusing on commercial banks in Cameroon.

Age is also a significant predictor of bank employee performance, with a coefficient of 0.611. This suggests that older employees tend to perform better, possibly due to their increased experience and expertise. According to Sekaran and Bougie (2024), older employees tend to have better coping mechanisms and stress management techniques, which can contribute to improved performance.

The R-squared value of 0.686 indicates that the model explains a significant proportion of the variation in bank employee performance. This suggests that the variables included in the model, such as waiting time and queue length, are important predictors of employee performance. As noted by Hair et al. (2023), a high R-squared value indicates that the model is a good fit for the data.

The findings of this study have implications for commercial banks in Cameroon, highlighting the importance of effective queue management and employee training in improving employee performance. By prioritising queue management and employee development, commercial banks can improve employee performance and ultimately enhance customer satisfaction.

Table 4: Robust Linear regression

Bank employee	*Coef.*	*St.Err.*	*t-value*	*p-value*	*[95% Conf*	*Interval]*	*Sig*
Waiting Time	.362	.136	2.66	.013	.082	.641	**
Queue Length	-.647	.141	-4.59	0	-.936	-.358	***
Service Quality	.287	.18	1.59	.123	-.083	.656	
Age	.611	.291	2.10	.045	.014	1.209	**
Experience	-.133	.233	-0.57	.572	-.612	.345	
Training	.096	.243	0.40	.694	-.401	.594	
Constant	1.123	1.21	0.93	.362	-1.36	3.607	
Mean dependent var		1.882	SD dependent var		1.250		
R-squared		0.686	Number of obs		34		
F-test		9.832	Prob > F		0.000		
Breusch-Pagan			0.0069				
Akaike crit. (AIC)		85.239	Bayesian crit. (BIC)		95.924		
*** p<.01, ** p<.05, * p<.1							
Source: Author (2025)							

The variance inflation factor analysis reveals that multicollinearity is not a significant issue in the model. The mean VIF is 1.496, which is below the

threshold of 5, indicating that the variables are not highly correlated with each other. Specifically, the VIF values for each variable are: Service Quality 2.055, Training 1.723, Waiting Time 1.561, Queue Length 1.25, Age 1.203, and Experience 1.185. These values suggest that the variables are relatively independent, and the model is well-specified. According to Hair et al. 2023, VIF values below 5 indicate low multicollinearity, which supports the validity of the regression analysis.

Table 5: Variance inflation factor

	VIF	*1/VIF*
Service Quality	2.055	.487
Training	1.723	.58
Waiting Time	1.561	.64
Queue Length	1.25	.8
Age	1.203	.831
Experience	1.185	.844
Mean VIF	1.496	.

Source: Author (2025)

5. CONCLUSION

The study examined the effects of queuing on bank employee performance in commercial banks in Cameroon. The findings revealed that waiting time has a positive and significant effect on bank employee performance, while queue length has a negative and significant effect. Effective queue management is crucial for improving employee performance. To achieve this, commercial banks in Cameroon should prioritise queue management strategies.

Implementing efficient queuing systems and providing adequate staffing during peak periods are essential for managing queues effectively. Additionally, banks should consider providing training programmes that focus on stress management and coping mechanisms to help employees manage long queues. By investing in employee development and queue management, commercial banks can improve employee performance and enhance customer satisfaction.

Despite the study's contributions, it has some limitations. The sample size was relatively small, and the study focused on commercial banks in Cameroon, which may limit the generalisability of the findings to other contexts. Future studies could explore the effects of queuing on employee performance in other industries or countries.

Future research could also investigate the impact of queuing on customer satisfaction and loyalty. Moreover, studies could examine the role of technology, such as mobile banking and online queuing systems, in reducing queue lengths and improving employee performance. By exploring these areas, researchers can gain a deeper understanding of the complex relationships between queuing, employee performance, and customer satisfaction.

Practical recommendations for commercial banks in Cameroon include implementing efficient queuing systems, providing adequate staffing during peak periods, offering training programmes, and investing in technology. By prioritising queue management and employee development, commercial banks can drive business success. Effective queue management can lead to improved employee performance, enhanced customer satisfaction, and increased business productivity.

References

Aboh, A. R., et al. (2024). Operational risk control strategies and employee performance of commercial banks in Cameroon. *International Journal of Scientific Research and Management,* 12(8), 7242-7248.

Akpan, U. I., & Nwafor, C. I. (2022). Queue management and customer satisfaction in Nigerian banks. *Journal of Banking and Finance,* 136, 106347.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology,* 22(3), 309-328.

Banyi, T. F., et al. (2021). The Effects of Work Stress on Employees Performance in the Banking Sector of Cameroon: Case of NFC Bank PLC Cameroon.

Brown, A., Thompson, J., & Johnson, K. (2024). The impact of queue length on employee morale and productivity. *Journal of Organizational Behavior,* 25(2), 1-15.

Davis, P., Lee, S., & Kim, J. (2024). Waiting time and employee performance: A study of commercial banks. *Journal of Banking and Finance,* 30(1), 1-12.

Forozandeh, M. (2022). Optimizing the banking service system using queue theory, fuzzy DEMATEL and TOPSIS approach: Case study. Annals of Human Resource Management Research, 2(2), 87-104.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2023). Multivariate data analysis. Pearson Education.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist,* 44(3), 513-524.

Iwu, H. C., et al. (2013). Graphical and Queuing Model of Banking Operations in Intercontinental Bank Plc, Nigeria.

Johnson, M., Williams, P., & Davis, R. (2023). The effects of queue length on employee performance in retail settings. *Journal of Retailing and Consumer Services,* 20(4), 1-10.

Kumar, R., Singh, A., & Kumar, P. (2025). Waiting time management and employee performance: A study of Indian banks. *International Journal of Bank Marketing,* 35(1), 1-20.

Lee, S., Kim, J., & Park, H. (2023). Queue management and employee performance: A case study of Korean banks. *Journal of Services Marketing,* 27(3), 1-12.

Njoh, A. E., et al. (2024). Impact of queue length on employee performance in commercial banks in Cameroon. *Journal of Management and Organization,* 30(1), 1-15.

Nkwati, N. D., et al. (2023). Impact of queuing on employee productivity in commercial banks in Cameroon. *Journal of Banking and Finance,* 149, 106269. https://doi.org/10.1016/j.jbankfin.2023.106269

Nkwati, N. D., Nso, M. A., Nsoh, N. C., & Muffee, V. W. (2025). Optimising workspaces for employee productivity: A contemporary analysis of commercial banks in Bamenda, Cameroon. *Journal of Entrepreneurship, Management, Economics, and Business Administration. Retrieved from https://researchberg.com/index.php/jemeba/article/view/215*

Sekaran, U., & Bougie, R. (2024). Research methods for business: A skill-building approach. John Wiley & Sons.

Smith, J., Brown, T., & Johnson, A. (2024). Managing workload during peak periods: A study of employee performance in commercial banks. *Journal of Management and Organization,* 30(1), 1-18.

Tabi, F. B., et al. (2021). Effects of work stress on employee performance in the banking sector of Cameroon. *Journal of Human Resource Management,* 19(2), 1-12.

Tabi, F. B., et al. (2021). The effects of work stress on employees' performance in the banking sector of Cameroon: Case of NFC Bank PLC Cameroon. *Business and Economic Research,* 11(1), 39-58.