#### DOI: https://doi.org/10.20372/star.V14.i1.05



ISSN: 2226-7522 (Print) and 2305-3372 (Online)

Science, Technology and Arts Research Journal Sci. Technol. Arts Res. J., Jan. – March 2025, 14(1), 49-64 Journal Homepage: https://journals.wgu.edu.et

**Original Research** 

# The Nexus between Dynamic Capability and Firm Performance: The Mediating Role of Multichannel Integration Quality in the Banking Sector

D Negash Geleta<sup>1</sup>, Chalchissa Amentie Kero<sup>2</sup> & Misganu Getahun<sup>3</sup>

<sup>1</sup>Department of Management, College of Business and Economics,

Ambo University, Ambo, Ethiopia

<sup>2</sup>Department of Development Management, College of Finance, Management and Development,

Ethiopian Civil Service University, Addis Ababa, Ethiopia

<sup>3</sup> Department of Management, College of Business and Economics,

Wollega University, Nekemte, Ethiopia

Abstract The main objective of the study was to examine the effects of dynamic capability (DC) on bank performance (BP) mediated by multichannel integration quality (MCIQ) in the case of Commercial Bank Ethiopia (CBE) Ambo District. The study adopted an explanatory research design, employing a quantitative approach to investigate the causal relationships between the key variables. For this study, primary data were collected from bank employees 235 using a standardized questionnaire and employed simple random sampling to ensure representation of the population. Data was analyzed using AMOS 23 and SPSS 25 with SEM to test hypotheses. The results revealed that DC and MCIQ have significant positive effects on bank performance. Furthermore, the findings showed that the effect of dynamic capability on bank performance is partially mediated by multichannel integration quality. Based on the findings, it is recommended that practitioners and decision-makers prioritize developing dynamic capability and improving multichannel integration quality to achieve sustainable performance. The study provides empirical evidence on dynamic capability and multichannel integration quality in the banking industry. Future research could explore the role of other mediating factors to extend the study to other sectors or countries for broader generalizability.

Received: 09-11-2024 Revised: 18-02-2025 Accepted: 30-03-2025 **Keywords:** Dynamic Capability, Multichannel Integration Quality, Bank Performance.

Article Information

**Article History:** 

\*Corresponding Author: Negash Geleta

E-mail:

kenu2002@gmail.com

Copyright@2025 STAR Journal, Wollega University. All Rights Reserved.

### INTRODUCTION

In today's digital age, banks' performance is increasingly driven by their dynamic capability and the quality of multichannel integration in a rapidly changing environment (Teece, 2018). In this case, strong dynamic capability is critical for banks to remain competitive. In this view, capabilities can allow banks to respond effectively to technological, customer, and competitive changes. In

parallel, seamless multichannel integration ensures consistent customer experience across multiple services, thereby improving overall performance. Studies such as (Hossain et al., 2020) have emphasized that MCIQ is essential for providing a consistent and seamless service experience to customers. Given the fast-paced evolution of technology, markets, and competition, banks so need to be proactive to maintain responsiveness and survive in dynamic service environments. This environment necessitates banks to quickly adapt to external changes while ensuring high service standards across available service channels (Nguyen, 2022).

In this view dynamic capability view, posits firms with superior dynamic capability can achieve long-term competitive advantage by reconfiguring their resources to fit in changing environments. However, despite extensive literature on the relationship between DCs and firm performance, a clear framework strategic for achieving performance remains elusive (Handoyo et al., 2023). To address this gap, the study investigates the DC-MCIQ-FP relationship within the banking industry. While DCs are known to enhance competitive advantage, there remains ambiguity about how they directly or indirectly affect performance. Further DC enhances firms' operational capabilities by enabling the continuous improvement of core processes.

In this context, MCIQ is conceptualized as an operational capability that represents banks' daily processes for delivering seamless and integrated services across multiple channels. Building this theoretical on foundation. banks must integrate their available service channels into core operations to maintain consistency in response to the

Sci. Technol. Arts Res. J., Jan.- March 2025, 14(1), 49-64 dynamic service landscape. Accordingly multichannel integration quality has become essential due to changes in customer behaviors, which demand more cohesive and personalized service experiences (Li et al., 2018). In the banking sector, multichannel integration plays a vital role in enhancing service quality and performance. However, despite its importance, it remains fragmented and conceptual, with limited empirical research on how it mediates the relationship between DCs and FP. Further MCIQ relies on firms' ability to reconfigure their resources and processes, which is critical for developing actionable strategies. While previous studies such as (Ellström et al., 2022) have linked DCs to BP, they failed to explain the mechanisms through which DCs influence performance in dynamic environments. Based on this the following objectives were developed and tested.

1) To examine the effect of dynamic capability on bank performance.

2) To explore the effect of dynamic capability on multichannel integration quality.

3) To examine the effect of multichannel integration quality on bank performance.

4) To examine the mediating effect of MCIQ between DC and bank performance.

# Theoretical Review Dynamic Capability View

Primarily this study employed DCV, which is the extension of the resource-based view. According to these authors, DC implies firms' ability to integrate, build, and reconfigure internal and external competencies, which encompasses three elements: (1) sensing opportunities and threats, (2) seizing opportunities, and (3) reconfiguration to

sustain competitively. These capabilities enable firms to adapt and transform their services into changing environments( Shang et al., 2020). Further DCs support banks by ensuring MCIQ provides consistent and customer experiences seamless across multiple service channels. In this condition, DCs play a great role in integrating service channels to meet customer expectations and provide uniform service quality. Further, aligned with MCIQ the seizing and reconfiguration dimensions of DC, allowing firms to adapt service delivery in a changing environment to enhance customer satisfaction. So in this case a strong MCIQ is vital for banking services in a dynamic environment that depends on firms' DCs. Further DCs may allow banks to sense the market, seize opportunities, and reconfigure to design MCIO for effective customer retention. So this complex interaction between DCs and MCI has become a central issue in the banking service industry which is tangent to environmental dynamism (Liu & Song, 2023) to generate opportunities.

### **Multichannel Integration Model**

To ensure service quality in service delivery more banks relied on separate physical and virtual channels to meet customer needs. Over time combining both physical and virtual channels becomes the best choice in the service industry which emphasizes the importance of multichannel integration to ensure customer touch points across available all service channels. In the bank service sector using MCIQ is becoming very acceptable and the best strategy. Designing MCIQ has a great impact on service outcomes such as customer loyalty, satisfaction, and engagement in different service delivery

Sci. Technol. Arts Res. J., Jan.- March 2025, 14(1), 49-64 channels (Zhu & Jin, 2023). MCIQ is now uncommon in service quality delivery, according to more researchers. Further emphasizing the role of MCIQ in creating seamless customer experiences. In this context, MCIQ has become more critical in service sectors such as banks. In this condition, banks operating in dynamic environments, MCIQ may enable rapid responses to the financial needs of firms and customers through digital services (Hossain et al., 2020) which is more supportive in the current situations.

# Hypothesis Development and Conceptual Framework

Hypothesis development and conceptual framework are closely linked because the conceptual framework provides the theoretical foundation that guides the formulation of hypotheses (Figure 1).

# Dynamic Capability and Bank Performance

Scholars have reached a consensus on the importance of DCs in improving corporate performance. Accordingly, DCs are the secret to sustained performance under speedy transformation. In this case, DCs enable enterprises to develop intangible assets to maintain processes in a sustainable performance(Teece, 2018). DCs have been frequently suggested as a concept to enhance performance through company digital transformation(Ellström et al., 2022).

H1: Dynamic capability has a significant effect on bank performance.

# Dynamic Capability and Multichannel Integration Quality

Firms must integrate digital and traditional channels to enhance firm performance. capability Integrating allows banks to effectively coordinate and allocate resources enabling them to respond to changes and mitigate competitive threats. Meanwhile, transforming/reconfiguration ensures а flexible structure, allowing banks to adapt and innovate resource deployment(Cannas, 2023). By leveraging these combined capabilities, banks can effectively respond to evolving demands and technology customer requirements, positioning themselves to capture timely information and achieve successful multichannel integration.

H2: Dynamic capability has a significant effect on multichannel Integration Quality.

# Multichannel Integration Quality & Bank Performance

Channel integration practices allow flexibility for consumer choice. As a sub-dimension of MCIQ, channel consistency increases the likelihood that consumers find the items in stock when needed without delay at convenient delivery points. Integrating *Sci. Technol. Arts Res. J., Jan.– March 2025, 14(1), 49-64* marketing channels can provide synergies that increase the effectiveness of each channel and contribute to enhancing performance (Frasquet et al., 2019). The integration of branding and promotion across channels allows customers to perceive a positive brand image and gain a consistent expectation of a company.

H3: Multichannel integration quality has a significant effect on banks' performance.

### Mediation

It analyzes how an independent variable (X) influences a dependent variable (Y) through a mediator (M). Based on this, the current study follows the Capabilities–Service Quality–Performance framework (Sorkun et al., 2020) and investigates the relationship between DC-MCIQ-FP. In this relationship, DCs play a great role by modifying firm resources such as MCIQ. Based on dynamic capability theory suggests multichannel integration quality dimensions as critical capabilities of a firm.

H4: Multichannel integration quality mediates the relationship between dynamic capability and banks' performance.

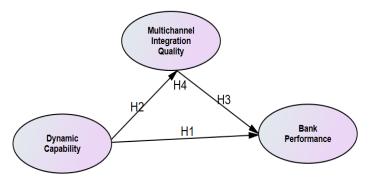


Figure 1. Conceptual Framework

# MATERIALS AND METHODS

# Study Area

This study examines the Commercial Bank of Ethiopia's dynamic capabilities, multichannel-integration quality, and performance in a fastchanging environment. Established in 1942,

CBE has been a key financial sector player, pioneering ATM services and interest-free banking. By June 2023, CBE had 1,937 branches, assets of Birr 1.3 trillion, and over 50,000 employees (CBE, 2022/23).

### Study Design, Population, and Sampling

This study employed an explanatory design to examine cause-effect relationships between DC, multichannel integration quality, and bank performance. The unit of analysis was the CBE southwest region, Ambo District which contains 65 branches and 1,282 permanent staff (610 managers and 672 frontline employees). The sample size was calculated using a finite population formula.

$$n = \frac{(Z)^2 p \cdot q \cdot N}{e^2 (N-1) + Z^2 \cdot p \cdot q}$$
  

$$n = \frac{(1.96)^2 0.5 \cdot 0.5 \cdot 1282}{0.05^2 (1282 - 1) + 1.96^2 \cdot 0.5 \cdot 0.5}$$
  

$$= \frac{1,231.2328}{4.1629} = 295.763 \cong 296$$

Sci. Technol. Arts Res. J., Jan.- March 2025, 14(1), 49-64 In this study, the sample size was initially calculated using a standard formula for sample proportion (p =0.5, q= 1-p), aiming for maximum sample size with desired precision. The finite population correction (FPC) formula was applied because the ratio n/N (296/1282=0.23) exceeded 5%, resulting in a final sample size of 241 employees. For sample selection, a multi-stage approach was employed (Table 1). Cluster sampling was first used to choose South West region and Ambo District from the three regions of CBE (South West, Central, and Northeast) and 31 districts. Next convenience sampling was used to select 20 branches from 65 total branches in Ambo District. Convenience sampling is used due to its ease of implementation, costeffectiveness, and time-saving, especially when participants are readily accessible. Finally, respondents were chosen from the selected branches through simple random sampling using a lottery method to ensure equal chances for all.

### Table 1

Variables and their Measures

| Main variables                   | Sub-measures | Items | Sources                         |
|----------------------------------|--------------|-------|---------------------------------|
|                                  | sc           | five  | (Cataltepe et al., 2023; Shafia |
| Dynamic Capability               | SZC          | five  | et al., 2016)                   |
|                                  | rc           | five  |                                 |
|                                  | csc          | five  |                                 |
| Multichannel integration Quality | ссс          | five  | (Hossain et al., 2019; Shen et  |
|                                  | cpc          | five  | al., 2018)                      |
|                                  | aq           | five  |                                 |
|                                  | fp           | five  | (Akkaya & Qaisar, 2021;         |
| Bank Performance                 | nfp          | five  | Kitenga et al., 2020)           |

### Source: Literature Review

Where; sc=sensing capability, szc=seizing capability, rc=reconfiguration capability, csc=channel service configuration, ccc=channel content consistency, cpc=channel process consistency, aq=assurance quality, fp=financial performance and nfp= non-financial performance.

### Variables, Measures, and Data Collection

This study has three main variables, DC, MCIQ, and BP, which are measured as follows. Dynamic capability was measured sensing, three seizing, using and reconfiguration. Sensing involves identifying opportunities and threats; seizing focuses on knowledge creation, and reconfiguration refers to adapting and integrating capabilities to Multichannel maintain competitiveness. Integration Quality was evaluated using four dimensions: channel service configuration, channel content consistency, channel process consistency, and assurance quality (Hossain et al., 2019). Lastly, BP was measured using financial and non-financial.

For data collection, the study used a structured questionnaire with a five-point Likert scale and was collected using a self-administered system. Before collecting data, all participants were told the purpose of the study as an ethical guideline and based on the respondent's informed consent. In this case, two hundred forty-one (241) questionnaires were distributed but due to inappropriate, 6 questions were excluded. Finally, the study used 235 questions, yielding a 95.5% response rate which is acceptable and preferable.

### **Method of Data Analysis**

This study used Structural Equation Modeling (SEM) with AMOS version 23, employing both a measurement model to assess relationships between observed and latent variables, and a structural model to examine latent variable interactions. In this case, descriptive analysis provided insights into data distribution, with means and standard deviations for dynamic capability, channel integration quality, and bank performance.

Sci. Technol. Arts Res. J., Jan.- March 2025, 14(1), 49-64 The measurement model's reliability and validity were evaluated through confirmatory factor analysis (CFA). Reliability was assessed using Cronbach's  $\alpha$ , with values above 0.7 indicating consistency. Validity was checked for convergent (AVE > 0.50, CR >0.70) and discriminant validity, ensuring constructs were distinct. In the case of the structural model, the analysis examined both direct and indirect effects of dynamic capability on bank performance through multichannel integration quality. It assesses the direct influence of DC on MCIQ and BP, as well as the mediating role of MCIQ between them, following the causal sequence:  $DC \rightarrow MCIQ \rightarrow BP$ . The indirect effect of DC on BP through MCIQ is tested using bootstrapping techniques in SEM-AMOS, which provide robust estimates without assuming normality. Model fit is evaluated using several indices, including chi-square pvalue > 0.05, CMIN/df < 3, GFI and Adjusted GFI > 0.95 and 0.90, SRMR < 0.05, RMSEA < 0.08, TLI and NFI > 0.90, and CFI > 0.95, confirming a good fit and supporting the study's conclusions.

### **RESULTS AND DISCUSSIONS** Respondents' Profile

Of 235 respondents most of them were male (94.0%, or 221 respondents) and aged over 31 years (56.2%). Nearly half held a bachelor's degree (49.4%, or 116 respondents), while 47.2% (111 respondents) had a master's degree or higher. The most common field of study was accounting and Finance (38.7%, or 91 respondents). But the experience levels varied, with 35.3% (83 respondents) having 6-10 years, 26.4% (62 participants) with 11-15 years, 24.3% (57 participants) with 1-5 years,

and 14.0% (33 participants) having over 16 years of experience.

### **Descriptive Analysis**

Descriptive analysis provides an overview of the central tendency and dispersion of the

### Table 2

*Sci. Technol. Arts Res. J., Jan.– March 2025, 14(1), 49-64* collected data. In this study, mean and standard deviation (SD) were used to summarize respondents' perceptions of key variables DC, MCIQ, and BP.

| Desc     | criptive Analysis             |      |                |
|----------|-------------------------------|------|----------------|
| Ν        | Aain Variables                | Mean | Std. Deviation |
| Bank Pe  | rformance                     | 2.99 | .45            |
| Multicha | annel Integration Quality     | 2.39 | .32            |
| Dynamie  | c Capability                  | 3.21 | .64            |
| Sub-dii  | mensions                      |      |                |
|          | Non-financial performance     | 3.49 | .71            |
| BP       | Financial performance         | 3.53 | .66            |
|          | Assurance Quality             | 3.50 | .62            |
| MCIQ     | Channel process consistency   | 3.40 | .62            |
|          | Channel content consistency   | 3.66 | .64            |
|          | Channel service configuration | 3.72 | .63            |
| DC       | Reconfiguration capability    | 3.65 | .85            |
|          | Seizing capability            | 3.68 | .86            |
|          | Sensing capability            | 3.65 | .89            |

Source: Survey Data Analysis, 2024

In Table 2, the descriptive analysis reveals bank performance with a mean of 2.99 (SD = 0.45) and room for improvement in multichannel integration quality (MCIQ), which scored 2.39 (SD = 0.32). Dynamic capability shows moderate adaptability (mean = 3.21, SD = 0.64). BP includes strong nonfinancial performance (mean = 3.49, SD = 0.71) and financial performance (mean = 3.5, SD = 0.65). MCIQ sub-dimensions like assurance quality (mean = 3.50, SD = 0.62) and channel content consistency (mean = 3.66, SD = 0.64) are strengths, but channel process consistency and service configuration need-

-improvement. DC sub-dimension reconfiguration, seizing, and sensing capabilities are strong, indicating adaptability.

### **Measurement Model Analysis**

The measurement model analysis was conducted to assess the reliability, and validity of the items and constructs used in the study (See Table 3 and Figure 2). The measurement model analysis ensures that the observed variables accurately reflect the latent constructs such as dynamic capability, multichannel integration quality, and bank performance.

# Negash, G., et al., **Table 3**

Factor Loading and Reliability Analysis

| Main Variables      | Factor Sub- |            | Factor  | Items      | Reliability |  |
|---------------------|-------------|------------|---------|------------|-------------|--|
|                     | Loading     | dimensions | Loading |            |             |  |
|                     |             |            | .991    | > sc5      |             |  |
|                     |             |            | .978    | > sc4      |             |  |
|                     | .895        |            | .961    | > sc3      | .992        |  |
|                     |             | > sc       | .988    | > sc2      |             |  |
|                     |             |            | .982    | > sc1      |             |  |
|                     |             |            | .976    | > szc5     |             |  |
|                     |             | >szc       | .968    | > szc4     |             |  |
| Dynamic Capability  | .809        |            | .992    | > szc3     | .994        |  |
|                     |             |            | .995    | > szc2     |             |  |
|                     |             |            | .990    | > szc1     |             |  |
|                     |             |            | .996    | > rc5      |             |  |
|                     |             |            | .988    | > rc4      |             |  |
|                     | .792        | >rc        | .997    | > rc3      | .961        |  |
|                     |             |            | .990    | > rc2      |             |  |
|                     |             |            | .998    | > rc1      |             |  |
|                     |             |            | .991    | $> \csc 5$ |             |  |
|                     |             |            | .998    | > csc4     |             |  |
|                     | .780        | >csc       | .956    | $> \csc 3$ | .993        |  |
|                     |             |            | .990    | > csc2     |             |  |
|                     |             |            | .971    | $> \csc 1$ |             |  |
|                     |             |            | .954    | > cc5      |             |  |
|                     |             |            | .958    | > cc4      |             |  |
|                     | .818        | >cc        | .942    | > cc3      | .978        |  |
|                     |             |            | .948    | > cc2      |             |  |
|                     |             |            | .936    | > cc1      |             |  |
|                     |             |            | .953    | > pc5      |             |  |
| Multichannel        |             |            | .963    | > pc4      |             |  |
| Integration Quality | .647        | >pc        | .986    | > pc3      | .991        |  |
| integration Quanty  | .017        | p <b>c</b> | .995    | > pc2      | .,,,1       |  |
|                     |             |            | .995    | > pc1      |             |  |
|                     |             |            | .964    | > aq5      |             |  |
|                     |             |            | .933    | > aq4      |             |  |
|                     |             |            | .993    | > aq3      |             |  |
|                     |             |            | .992    | > aq2      |             |  |
|                     | .570        | >aq        | .992    | > aq1      | .989        |  |
|                     | .570        | , uq       | .981    | > td4      | .,0,        |  |
|                     |             |            | .975    | > td4      |             |  |
|                     |             |            | .965    | > td3      |             |  |
|                     |             |            | .903    | > td2      |             |  |
|                     |             |            | .978    | > fp5      |             |  |
|                     |             |            |         | -          |             |  |
|                     |             |            | .995    | > fp4      |             |  |

| Negash, G., et al., |     |      | Sci. Technol. Arts Res. J., Jan.– March 2025, 14(1) |        |      |  |
|---------------------|-----|------|---|--------|------|--|
| Table 3 continues,  |     |      | .897  | > fp2  |      |  |
|                     |     |      | .980  | > fp1  |      |  |
|                     |     |      | .959  | > nfp5 |      |  |
|                     |     |      | .973  | > npf4 |      |  |
|                     | .70 | >nfp | .951  | > nfp3 | .982 |  |
|                     |     |      | .971  | > nfp2 |      |  |
|                     |     |      | .940  | > nfp1 |      |  |

Source: Survey Data Analysis, 2024

Table 3 shows measurement model analysis of strong factor loadings, confirming reliable relationships between main variables and their sub-dimensions. The dynamic capability has a high loading of 0.895, with sub-dimensions sc, szc, and rc showing loadings of 0.809, 0.792, and 0.792, indicating a well-represented concept. Multichannel integration quality

loads at 0.780, with csc as the strongest subdimension (0.818) among cc, pc, and aq. Bank performance loads at 0.83, with both fp and nfp contributing significantly at 0.70 each. Overall, these loadings confirm the model's reliability in capturing key constructs.

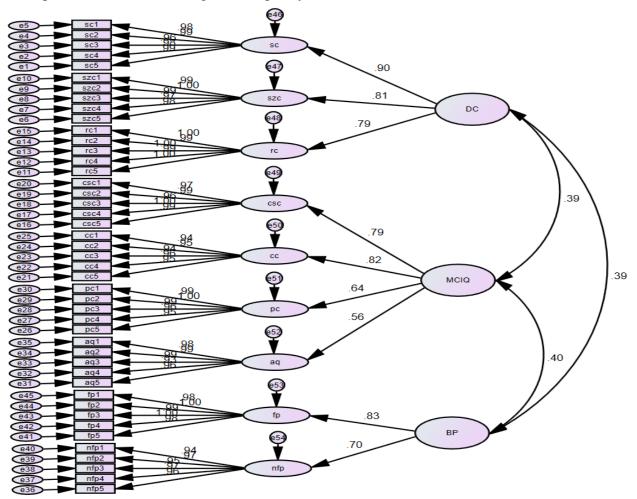


Figure 2 Factor Loading Analysis AMOS Results

A Peer-reviewed Official International Journal of Wollega University, Ethiopia

# Negash, G., et al., **Table 4**

Main Variables Validity Analysis

| Main Variables                   | CR    | AVE   | DC       | MCIQ     | BP    |
|----------------------------------|-------|-------|----------|----------|-------|
| Dynamic Capability               | 0.872 | 0.694 | 0.833    |          |       |
| Multichannel Integration Quality | 0.799 | 0.505 | 0.389*** | 0.710    |       |
| Bank Performance                 | 0.739 | 0.588 | 0.395*** | 0.396*** | 0.767 |

Source: Survey Data Analysis, 2024

In Table 4, the validity test results for the main variables indicate that the constructs are reliable and distinct. The composite reliability values for DC (0.872), MCIQ (0.799), and BP (0.739) exceed 0.7, confirming strong internal consistency. Average Variance Extracted (AVE) values also meet the 0.50 threshold, supporting adequate convergent validity: DC (0.694), MCIQ (0.505), and BP (0.588).

Discriminant validity is established as each construct's AVE square root surpasses its correlations with other variables, indicating distinctiveness (e.g., DC's AVE square root of 0.833 exceeds its correlations with MCIQ and BP). Overall, the variables exhibit strong reliability, convergent validity, and discriminant validity.

### Table 5

Sub-Dimensions Validity Analysis

| Sub-       | CR    | AVE   | Sc    | SZC   | rc    | csc   | cc    | pc    | aq    | fp    | nfp   |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| dimensions |       |       |       |       |       |       |       |       |       |       |       |
| sc         | 0.992 | 0.961 | 0.980 |       |       |       |       |       |       |       |       |
| szc        | 0.994 | 0.969 | 0.721 | 0.984 |       |       |       |       |       |       |       |
| rc         | 0.997 | 0.987 | 0.710 | 0.645 | 0.994 |       |       |       |       |       |       |
| csc        | 0.992 | 0.963 | 0.264 | 0.212 | 0.244 | 0.981 |       |       |       |       |       |
| cc         | 0.978 | 0.898 | 0.293 | 0.258 | 0.254 | 0.662 | 0.948 |       |       |       |       |
| pc         | 0.991 | 0.957 | 0.218 | 0.199 | 0.234 | 0.481 | 0.522 | 0.978 |       |       |       |
| aq         | 0.989 | 0.946 | 0.202 | 0.235 | 0.151 | 0.434 | 0.423 | 0.438 | 0.973 |       |       |
| fp         | 0.996 | 0.979 | 0.291 | 0.246 | 0.191 | 0.288 | 0.263 | 0.229 | 0.216 | 0.989 |       |
| nfp        | 0.983 | 0.919 | 0.285 | 0.263 | 0.204 | 0.184 | 0.200 | 0.088 | 0.212 | 0.580 | 0.959 |

Source: Survey Data Analysis, 2024 Note: sc=sensing capability, szc=sensing capability, rc=reconfiguration capability, csc=channel service configuration, cc=channel consistency, pc=process consistency, aq=assurance quality, fp=financial performance and nfp=non-financial performance

In Table 5, the validity test for sub-dimensions confirms strong reliability, convergent validity, and discriminant validity. CR values, all above 0.70, range from 0.978 (cc) to 0.997 (rc), confirming internal consistency. AVE values exceed the 0.50 threshold, ensuring adequate convergent validity: sc (0.961), szc (0.969), and rc (0.987) accurately reflect their constructs. Discriminant validity is confirmed, as each sub-dimension AVE square root surpasses its correlations with others (SC's AVE square root of 0.980 exceeds its correlations with szc and rc). These findings validate the sub-dimensions as reliable and distinct within the model.

### Negash, G., et al., Structural Model Analysis

The structural model analysis was conducted to test the hypothesized relationships between dynamic capability, multichannel integration quality, and bank performance. Structural equation modeling using AMOS was used to evaluate the direct, indirect, and total effects of the variables. Key aspects of the analysis include path coefficients, significance levels, and model fit indices.

# Sci. Technol. Arts Res. J., Jan.- March 2025, 14(1), 49-64

# Mediation Analysis: Total, Direct and Indirect Analysis

Following the measurement model analysis, the structural model examined the significant relationship between the latent variables. The mediation analysis was conducted to see if MCIQ played mediating a role in linking DC and bank performance (Figure 3).

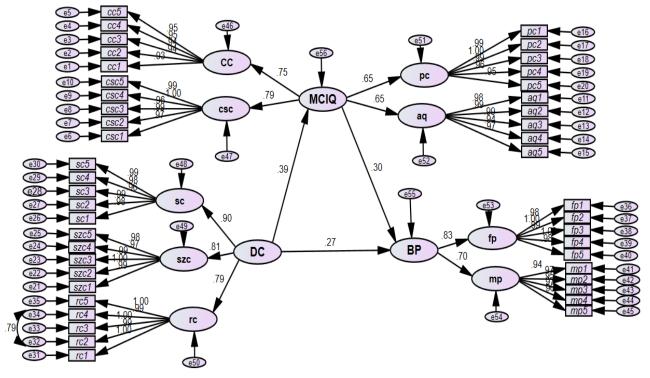


Figure 3. Mediation Model Result

The model fit statistics, as indicated in Table 6, show a strong model, with a few areas of concern. The Chi-square/df ratio (CMIN/DF) is 2.220, which falls within the acceptable range of 1 to 3, suggesting an excellent fit. The Comparative Fit Index (CFI) is 0.958, exceeding the threshold of 0.95, indicating that the model fits the data very well when compared to a null model. Similarly, the Standardized Root Mean Square Residual

(SRMR) is 0.038, well below the 0.08 threshold, which reflects an excellent fit by showing minimal differences between the observed and predicted covariance matrices. However, the Root Mean Square Error of Approximation (RMSEA) is 0.072, which, while still reasonable, exceeds the desired value of 0.06, indicating only an acceptable fit. Overall, the model exhibits a strong fit, but there is room for improvement.

# Negash, G., et al., **Table 6**

| Measure | Estimate | Threshold       | Interpretation |
|---------|----------|-----------------|----------------|
| CMIN/DF | 2.220    | Between 1 and 3 | Excellent      |
| CFI     | 0.958    | >0.95           | Excellent      |
| SRMR    | 0.038    | < 0.08          | Excellent      |
| RMSEA   | 0.072    | <0.06           | Acceptable     |
|         |          |                 |                |

Model Fit Analysis

Source: Survey Data Analysis, 2024

Further, after ensuring reliability and validity through appropriate measurement model checks, in Table 7 the structural model's hypothesized relationships were tested using AMOS output. The results demonstrate that all hypothesized paths are statistically significant and positive, confirming the theoretical framework's predictive validity.

### Table 7

#### Hypothesis Testing

| Description     | Hypothesis Paths | Hypothesi | Effects | P-Value | Decision | Mediation |  |  |
|-----------------|------------------|-----------|---------|---------|----------|-----------|--|--|
|                 |                  | S         |         |         |          |           |  |  |
|                 | DC>BP            | H1        | .27     | .017    | Accepted |           |  |  |
| Direct Effect   | DC>MCIQ          | H2        | .39     | .008    | Accepted | Partial   |  |  |
|                 | MCIQ> MP         | H3        | .30     | .015    | Accepted |           |  |  |
| Indirect Effect | : DC>MCIQ        | H4        | .116    | .014    | Accepted |           |  |  |
| >BP             |                  |           |         |         |          |           |  |  |
| Total Effect: D | DE +IE           |           | .385    | .007    |          |           |  |  |
|                 |                  |           |         |         |          |           |  |  |

Source: Survey Data Analysis, 2024

# Direct Effect of Dynamic Capability on Bank Performance

The analysis indicates that DC has a direct positive effect on BP, with a standardized coefficient of 0.27 and a p-value of 0.017. Since the p-value is less than 0.05, hypothesis H1 is confirmed, suggesting that enhancing dynamic capability directly improves bank performance. This implies that banks with strong sensing, seizing, and reconfiguration capabilities can better adapt to changing environments, ultimately driving higher performance.

# Direct Effect of DC on Multichannel Integration Quality

DC also positively influences MCIQ, with a path coefficient of 0.39 and a p-value of 0.008, supporting hypothesis H2. This result indicates that banks with high dynamic capability are more effective in integrating and managing multiple service channels, improving customer experience and operational efficiency.

### **Direct Effect of MCIQ on BP**

The direct impact of MCIQ on BP is significant, with a standardized regression coefficient of 0.30 and a p-value of 0.015.

This supports hypothesis H3, highlighting the importance of multichannel integration quality in enhancing bank performance. Effective multichannel integration enables seamless customer interaction across various platforms, thereby contributing to better customer satisfaction and loyalty, which ultimately boosts overall performance.

# Mediation Effect of MCIQ in the DC-BP Relationship

The mediation analysis shows that MCIQ partially mediates the relationship between DC and BP, with an indirect effect coefficient of 0.116 and a p-value of 0.014, confirming hypothesis H4. The total effect of DC on BP, considering both the direct and indirect paths through MCIQ, is 0.385 with a p-value of 0.007. This finding underscores that while dynamic capability has a direct impact on performance, a significant portion of its effect is channeled through improved multichannel integration quality.

### **Interpretation of Total Effect**

The total effect of 0.385 indicates that dynamic capability plays a dual role—both directly enhancing performance and indirectly influencing it through MCIQ. This suggests that banks aiming to improve performance should not only develop dynamic capability but also invest in technologies and processes that enable superior integration across multiple service channels.

#### Discussions

The study found a positive relationship between dynamic capability, multichannel integration quality, and bank performance.

Sci. Technol. Arts Res. J., Jan.- March 2025, 14(1), 49-64 Higher DCs (sensing, seizing, reconfiguration) and lower DCs (administration, operations, governance) strengthen MCIO as a measure of service quality, consistent with Hossain et al. (2019) and grounded in dynamic capability theory. Committed bank managers can enhance MCIQ by setting effective guidelines to improve service delivery. DCs allow banks to integrate multichannel services, responding to customer demands and technology needs even in competitive settings, supported by past studies (Cannas, 2023). MCIQ's positive impact on BP was highlighted, with strategies like channel content, consistency, process quality, and assurance crucial to sustainable performance and growth. Additionally, research suggests MCIQ boosts value. satisfaction, loyalty, customer and performance (Cao & Li, 2018; Handajani et al., 2021). The study also confirms MCIO's partial mediation between DC and BP, demonstrating that quality service practices help retain and attract clients, sustaining high bank performance.

### CONCLUSIONS

This study offers valuable contributions to both theory and practice. Theoretically, it expands the dynamic capability theory by exploring how the interaction between capabilities, particularly resources and capability and multichannel dynamic integration quality (MCIQ), enhances bank performance. The research provides empirical evidence on the role of DCs in improving BP and MCIQ, offering insights into the hierarchical nature of DCs and their impact on performance. Methodologically, it utilizes **SEM-AMOS** to assess DC's effects. contributing to better measurement and understanding of dynamic capabilities. For

practice, the study guides bank managers to improve sustainability by optimizing DCs such as sensing, seizing, and reconfiguring resources and enhancing MCIQ elements like channel service configuration and content consistency. By focusing on these areas, banks can strengthen their competitive advantage and boost both market and financial performance. The findings also offer strategic advice to policymakers on promoting MCIQ practices in banks to drive long-term success.

### Recommendations

The study's limitations include its focus on Ethiopian public commercial banks, which may limit generalizability, and its reliance on two main constructs. Future research could extend these findings by exploring omnichannel strategies, digital transformation, and the long-term impacts of these variables bank performance. Additionally, on investigating mediating mechanisms and moderators in the DC-performance relationship could provide further insights.

# **CRediT** authorship contribution statement

Negash Geleta: Conceptualization, method logy development, investigation, data collec tion, and drafting of the original manuscript. Chalchissa Amentie: Formal analysis, applying statistical techniques, curating the data, and validating its reproducibility. Misganu Getahun: Reviewing and editing the manuscript.

# **Declaration of Competing Interest**

The authors declare that there is no conflict of interest.

# Data availability

Data will be made available on request.

The authors extend their gratitude to all partners for their insightful guidance and invaluable feedback on every aspect of this work.

# REFERENCES

- Akkaya, B., & Qaisar, I. (2021). Linking Dynamic Capabilities and Market Performance of SMEs: The Moderating Role of Organizational Agility. *Istanbul Business Research*, 50(2), 197-214. https://doi.org/10.26650/ibr.2021.50.9612 37
- Cannas, R. (2023). Exploring digital transformation and dynamic capabilities in agrifood SMEs. *Journal of Small Business Management*, *61*(4), 1611–1637. https://doi.org/10.1080/00472778.2020.18 44494
- Cao, L., & Li, L. (2018). Determinants of Retailers' Cross-channel Integration: An Innovation Diffusion Perspective on Omni-channel Retailing. Journal of44. 1–16. Interactive Marketing. https://doi.org /10.10 16/j.intmar.2018.04.003
- Cataltepe, V., Kamasak, R., Bulutlar, F., & Palalar Alkan, D. (2023). Dynamic and marketing capabilities as determinants of firm performance: evidence from automotive industry. *Journal of Asia Business Studies*, *17*(3), 617–638. https://doi.org/10.1108/JABS-11-2021-04 75
- CBE, R. (2022/2023). Annual Report CBE, 7(November), 14–25. https://comban keth.et/cbeapi/uploads/CBE\_Annual\_Repo rt\_22\_23\_final\_3039f17626.pdf?csrt=926 2906867467545822

- Ellström, D., Holtström, J., Berg, E., & Josefsson, C. (2022). Dynamic capabilities for digital transformation. Journal of Strategy and Management, 15(2), 272– 286. https://doi.org/10.1108/JSMA-04-2021-0089
- Frasquet, M., Ieva, M., & Ziliani, C. (2019). Understanding complaint channel usage in multichannel retailing. *Journal of Retailing and Consumer Services*, 47, 94– 103.

https://doi.org/10.1016/j.jretconser.2018.1 1.007

- Handajani, L., Akram, A., & Rifai, A. (2021). Sustainable Banking and Bank Performance. *Jurnal Ilmiah Akuntansi Dan Bisnis, 16*(1), 169. https://doi.org/10. 24843/jiab.2021.v16.i01.p12
- Handoyo, S., Suharman, H., Ghani, E. K., & Soedarsono, S. (2023). competition intensity and its implication on open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(2), 100039. https://doi.org/10.1016/j.joitmc.2 023.100039
- Hossain, T. M. T., Akter, S., Kattiyapornpong, U.. & Dwivedi, Y. Κ. (2019). Multichannel integration quality: Α systematic review and agenda for future research. Journal of Retailing and Consumer Services. 49, 154-163. https://doi.org/10.1016/j.jretconser.2 019.03.019
- Hossain, T. M. T., Akter, S., Kattiyapornpong, U., Dwivedi, Y., Taufique, T. M., Akter, S., Kattiyapornpong, U., & Dwivedi, Y. Reconceptualizing (2020).Integration Omnichannel Quality **Dynamics** for Marketing. Industrial Marketing Management, 87(May), 225-241.

- Sci. Technol. Arts Res. J., Jan.– March 2025, 14(1), 49-64 https://doi.org/10.1016/j.indmarman.2019. 12.006
- Kitenga, G., Kilika, J. M., & Muchemi, A. W. (2020). Dynamic Capabilities and Performance: The Mediating Role of Firm Competence. *Journal of Economics and Business*, 3(1), 450–474. https://doi.org/ 10.31014/aior.1992.03.01.211
- Li, Y., Liu, H., Lim, E. T. K., Goh, J. M., Yang, F., & Lee, M. K. O. (2018). Customer's reaction to cross-channel integration in omnichannel retailing: The mediating roles of retailer uncertainty, identity attractiveness, and switching costs. *Decision Support Systems*, 109, 50– 60.

https://doi.org/10.1016/j.dss.2017.12.010

- Liu, Y., & Song, G. (2023). Role of Logistics Integration Capability in Enhancing Performance in Omni-Channel Retailing: Supply Chain Integration as Mediator. Sustainability (Switzerland), 15(11). https://doi.org/10.3390/su15119053
- Nguyen, P. T. (2022). The Impact of Banking Sector Development on Economic Growth: The Case of Vietnam's Transitional Economy. Journal of Risk Financial Management, and 15(8). https://doi.org/10.3 390/irfm15080358
- Shafia, M. A., Shavvalpour, S., Hosseini, M., & Hosseini, R. (2016). Mediating effect of technological innovation capabilities between dynamic capabilities and competitiveness of research and technology organisations. Technology Analysis and Strategic Management, 28(7). 811-826. https://doi.org/10.1080/09537325.2016.11 58404
- Shang, H., Chen, R., & Li, Z. (2020). Dynamic sustainability capabilities and

corporate sustainability performance: The mediating effect of resource management capabilities. *Sustainable Development*, 28(4), 595–612.

https://doi.org/10.1002/sd.2011

Shen, X. L., Li, Y. J., Sun, Y., & Wang, N. (2018). Channel integration quality, perceived fluency and omnichannel service usage: The moderating roles of internal and external usage experience. *Decision Support Systems*, 109(2017), 61– 73.

https://doi.org/10.1016/j.dss.2018.01.006

Sorkun, M. F., Yumurtacı Hüseyinoğlu, I. Ö., & Börühan, G. (2020). Omni-channel capability and customer satisfaction: mediating roles of flexibility and

- Sci. Technol. Arts Res. J., Jan.– March 2025, 14(1), 49-64 operational logistics service quality. International Journal of Retail and Distribution Management, 48(6), 629– 648. https://doi.org/10.1108/IJRDM-07-2019-0235
- Teece, D. J. (2018). Profiting from innovation in the digital economy: Enabling technologies, standards, and licensing models in the wireless world. *Research Policy*, 47(8), 1367–1387. https://doi.org/10.1016/j.respol.2017.01.01 5
- Zhu, Y., & Jin, S. (2023). COVID-19, Digital Transformation of Banks, and Operational Capabilities of Commercial Banks. Sustainability (Switzerland), 15(11). https://doi.org/10.3390/su15118783