

The Effect of Marketing Vigilance on Bank Performance Through Fintech Innovations: A Case Study of CPA, BNA and BEA Banks in Jijel- Algeria

أثر اليقظة التسويقية على أداء البنوك من خلال الابتكارات المالية: دراسة حالة لبنوك CPA ، BNA و BEA في ولاية جيجل - الجزائر

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Abstract:

This study aims to investigate the effect of marketing vigilance on bank performance through the mediating role of fintech innovations in CPA, BNA, and BEA banks in Jijel. It highlights the importance of integrating strategic marketing practices and financial technology to enhance competitiveness and operational efficiency within these banks. A descriptive-analytical methodology was employed, collecting data from 50 valid responses using a structured questionnaire. The results revealed that marketing vigilance significantly impacts fintech innovations and bank performance, with fintech innovations playing a partial mediating role. However, low adoption levels of marketing vigilance and fintech innovations in CPA, BNA, and BEA banks underscore the need for enhanced strategies to strengthen their competitiveness and efficiency.

Keywords: Marketing Vigilance; Environmental scanning; Diagnostic Capability; Fintech Innovations; Bank Performance.

JEL Classification Code: M31, G21, O33.

ملخص:

تهدف هذه الدراسة إلى تحليل أثر اليقظة التسويقية على أداء البنوك من خلال الدور الوسيط للابتكارات المالية في بنوك CPA ، BNA و BEA بولاية جيجل. وتبرز الدراسة أهمية دمج الممارسات التسويقية الاستراتيجية والتكنولوجيا المالية لتعزيز التنافسية والكفاءة التشغيلية داخل هذه البنوك. تم اعتماد منهج وصفي تحليلي، حيث تم جمع البيانات من خلال استبيان مُنظَّم تمت الإجابة عليه من طرف 50 مفردة صالحة للتحليل. وقد كشفت النتائج أن لليقظة التسويقية تأثيراً معنوياً على كل من الابتكارات المالية وأداء البنوك، مع وجود دور وساطي جزئي للابتكارات المالية. ومع ذلك، فإن المستويات المنخفضة في تبني اليقظة التسويقية والابتكارات المالية لدى بنوك CPA ، BNA و BEA تبرز الحاجة إلى تعزيز الاستراتيجيات الهادفة إلى دعم تنافسيتها ورفع كفاءتها.

كلمات مفتاحية: اليقظة التسويقية، المسح البيئي، القدرة التشخيصية، الابتكارات المالية، الأداء البنكي.

تصنيفات JEL : M31 ، G21 ، O33.

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INTRODUCTION

In today's banking industry, rapid technological advancements and the growing influence of financial technology (fintech) highlight the critical role of marketing vigilance. This vigilance is essential for banks to ensure their long-term sustainability and effectively adapt to digital transformations. Marketing vigilance involves closely monitoring market dynamics and deeply understanding customer preferences. This strategic approach enables banks to adjust their marketing strategies agilely, enhancing their capacity for innovation and maintaining a competitive edge. By embracing fintech innovations, banks can significantly enhance their service offerings and provide seamless user experiences. This not only boosts customer satisfaction but also builds lasting customer loyalty. As a result, banks strengthen their market position and create opportunities for sustainable growth in the future. The banking sector in Algeria, it faces both challenges and opportunities similar to those found in global markets. With fintech gaining momentum within the country, Algerian banks are proactively upgrading their services and leveraging advanced technologies to better meet the evolving needs of customers. This proactive strategy not only enhances their competitiveness in the local market but also contributes to broader economic development initiatives in Algeria.

Research Problematic:

Based on the above, the research problem of this study is formulated in the following main research question: **What is the extent effect of Marketing Vigilance on bank performance through Fintech innovation as a mediating factor in CPA, BNA and BEA Banks in Jijel?**

Therefore, this study attempts to answer the following questions:

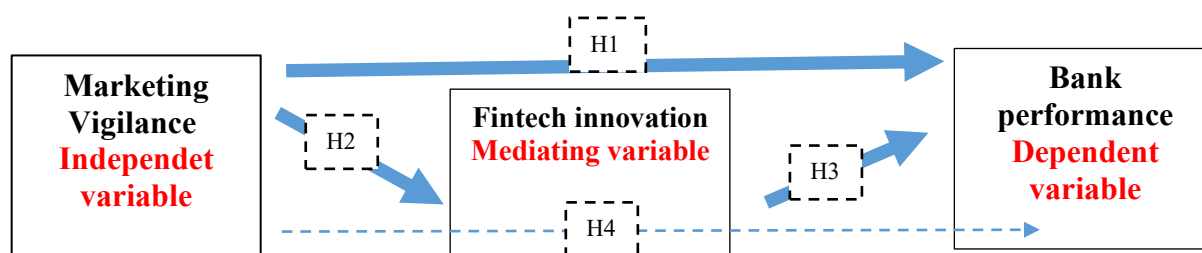
- Does Marketing Vigilance (environmental scanning, diagnostic capability, decision and budget authority) influence bank performance in CPA, BNA and BEA Banks in Jijel?
- Is there a relationship between Marketing Vigilance (environmental scanning, diagnostic capability, decision and budget authority) and Fintech Innovations in CPA, BNA and BEA Banks in Jijel?
- Does Fintech innovation mediate the relationship between Marketing Vigilance (environmental scanning, diagnostic capability, decision and budget authority) and bank performance?

Study Model:

This study based on investigating the relationship between Marketing Vigilance dimensions (Environmental scanning, diagnostic capability, decision and budget authority) and bank performance via fintech as a mediating factor. Therefore, marketing vigilance is the independent variable that we measured according to (Hanssens D.M., 2016) model, Fintech innovation is the mediating variable, and bank performance is the dependent variable, which we measured according to (Hani Al-Dmour, 2020). These hypothetical relationships are diagrammed in Figure (01):

Figure (01): The Study Model

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Source: Prepared by the researchers based on previous studies.

Based on the study model, the following hypotheses are suggested:

H1: The marketing vigilance and its dimensions have significant influence on bank performance in CPA, BNA and BEA Banks in Jijel.

H2: The marketing vigilance and its dimensions have significant influence on fintech innovations in CPA, BNA and BEA Banks in Jijel.

H3: Fintech innovation has significant influence on bank performance in CPA, BNA and BEA Banks in Jijel.

H4: Fintech innovation is significantly mediating the relationship between marketing vigilance and bank performance in CPA, BNA and BEA Banks in Jijel.

The Importance of the study:

This study is crucial for understanding how marketing vigilance impacts bank performance, influences Fintech innovation and its potentially mediating role in their relationship. It sheds light on how strategic marketing can enhance financial outcomes and drive technological advancements, offering insights to optimize strategies and maintain competitiveness in Algeria's evolving market environment.

The Objectives of The Study:

This study aims to assess the sample's understanding of marketing vigilance dimensions, evaluate how well the banks under the study are keeping up with major financial technological advancements, and explore the impact of marketing vigilance on the performance of these banks amidst technological changes.

Previous Studies:

Nawal Attoui and Amina Khettabet's 2023 research, "Marketing Vigilance and Its Role in Improving Marketing Performance," examines the impact of marketing vigilance on the performance of economic institutions in M'sila, Algeria. The study finds a significant positive correlation between marketing vigilance and key performance metrics, such as market share, profitability and customer satisfaction. It highlights the importance of a robust marketing vigilance system for gaining a competitive edge and ensuring sustainable growth in dynamic business environments.

Then we have Dinh Phan and others' 2019 study, "Do Financial Technology Firms Influence Bank Performance?" investigates the impact of FinTech on bank performance in Indonesia. The research shows that FinTech growth negatively affects key performance metrics, such as NIM, ROA, ROE, and YEA, with a greater impact on large, mature and state-owned banks. The study provides empirical evidence of how FinTech disrupts bank performance in emerging markets, offering insights for policymakers and banks.

Also, Hani El Chaarani and Zouhour El Abiad's study, "The Impact of Technological

Innovation on Bank Performance," examines the effect of technological innovations like mobile banking, internet banking, ATMs, and software investments on the financial performance of Lebanese banks. The study finds that internet banking and ATMs positively improve bank performance, while mobile banking and software investments have limited impact. It emphasizes the importance of prioritizing internet banking and ATMs to enhance competitiveness and operational efficiency in Lebanese banks.

1. Marketing Vigilance:

Vigilance is the continuous process of monitoring the environment to anticipate changes (Hermel, 2001). Blanco and others define it as systematically tracking organizational factors to support decision-making with accurate strategic information (Blanco, 1997). Marketing vigilance, a specialized form of vigilance, involves gathering, analyzing, and sharing data to inform strategy, foster innovation, and gain a competitive edge. It helps organizations identify opportunities, mitigate threats, and enhance strategic direction (Nisreen Mohsen Ali, 2023). Kotler and Bernnard emphasize its focus on modern marketing methods and customer behavior (Kotler, 2001), while Dumas stresses the need for an ongoing, ethical approach to spot emerging trends and guide decisions (Madni Ahmed). Kotler and Keller highlight its role in anticipating changes, guiding strategic decisions, and promoting innovation (Kotler P. &, 2016). Marketing vigilance also supports senior management in seizing opportunities, strengthening customer relationships, and improving strategic thinking (Sahera Mohammed Hassan, 2020), while adapting resources to stay competitive (Thabet Ali Saleh, 2023).

1.1 Marketing Vigilance Dimension:

According to previous studies the marketing vigilance dimensions are:

- **Environmental scanning:** Environmental scanning is the process of gathering and analyzing information from both internal and external environments to help organizations, especially banks, make strategic decisions like mergers, acquisitions and expansions (Naomi W Mwai, 2015). It allows banks to identify opportunities, evaluate risks and adapt by recognizing their strengths, such as advanced technology and quality services, which enable them to develop new financial products, enter new markets and perform sustainably in the long term (الطاهر, 2022).
- **Diagnostic Capability:** The Marketing Vigilance Dimensions framework by Hanssens, Wang, and Zhang highlights the importance of diagnostic capability in banks, which helps managers to understand the key market signals, like loan approvals or customer feedback, to improve performance (Hanssens D.M., 2016). For this, banks need skilled managers who can clearly communicate goals, motivate their teams, build strong relationships, set high performance standards, and make well-informed decisions based on careful analysis (Agustian Zen, 2023).
- **Decision and Budget Authority:** Authority refers to the formal right to make decisions within an organization, linked to a specific role rather than personal traits, ending when the individual leaves the position. It guides and manages employees, distinct from personal preferences. Decision-making, on the other hand, is a specialized skill aimed at selecting the best option by evaluating alternatives in different contexts. It is a complex process influenced not only by cognitive factors but also by social values, cultural norms, and emotional states, which can impact decisions both directly and indirectly (ابراهيم)

2. Fintech innovations :

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FinTech innovation is rapidly transforming commercial banks by driving digital transformation and the adoption of new technologies (Chengming Li, 2022). FinTech refers to technologies that enhance financial services and create new business models or opportunities (Huawei Tian, 2023). It encompasses products and services that leverage technology to improve traditional financial services, making them faster, more affordable, and accessible to a wider audience (علي، 2021). FinTech increases competition, introduces new models, and improves efficiency by integrating big data, cloud computing, and AI, prompting banks to adapt (Chi-Chuan Lee, 2021). Key categories of FinTech innovation include cashless payment solutions, automated advisory services, digital financing methods, and compliance technologies like RegTech and robotics (Leong, 2018).

3. Bank performance:

To achieve their strategic goals, banks must implement a strong Marketing Vigilance System, supported by adequate human, material, and technical resources. A well-organized Marketing Vigilance team ensures tasks are completed systematically, directly impacting performance by enhancing products and services, leading to increased revenues and profits. Indirectly, it helps formulate future strategies to boost profits and sustain customer trust (تفاحة، 2021). Banking performance is influenced by both organizational factors, such as the bank's size, effective management, and resource handling, and environmental factors, like economic conditions and technological innovations. Larger banks benefit from economies of scale and diversification, while strong economic conditions typically lead to higher profits. Technological advancements improve operational efficiency, reduce costs, and enhance security, further strengthening customer experience and banking performance (كاشف، 2022).

Field Study:

1. Study Methodology:

The descriptive-analytical methodology was employed, involving the collection of data through the distribution of a questionnaire to employees of CPA, BNA, and BEA banks, including managers, department heads, and administrative staff. The data were analyzed, and the hypotheses mentioned in the **Figure (01)** were tested using the Statistical Package for the Social Sciences (SPSS22).

2. The Study Tool:

As part of our data collection for this study, we divided the questionnaire into four sections:

- **The first section** was dedicated to demographic variables and personal data of the study sample (gender, age, educational level, years of experience, and job position) ;
- **The second section** focused on the independent variable, which is Marketing Vigilance and was divided into three dimensions: environmental scanning, diagnostic ability, and decision and budget authority. This was measured with 17 items;
- **The third section** addressed the mediating variable, which is Fintech Innovations, measured with 7 items;
- **The fourth section** dealt with the dependent variable, which is Bank Performance, measured with 9 items.

To measure the independent variable, marketing vigilance, we relied on the items

developed from the previous study titled.: “Marketing Vigilance of Banking Services and Its Impact on Customer Satisfaction as a Pathway to Achieving Competitive Advantage: An Applied Study on the National Bank of Egypt” (محمد), and to measure the mediating variable Fintech Innovations and the dependent variable Bank Performance, we used the items from the previous study: “The Effect of Marketing Knowledge Management on Bank Performance Through Fintech Innovations: A Survey Study of Jordanian Commercial Banks (Hani Al-Dmour). The following figure shows the key focus of the measurement items with their corresponding codes:

Figure (02): Variables, Measurement Items and codes

Variables / Dimensions	Key Focus of Measurement Items / Codes
Marketing Vigilance	/
Environmental Scanning	Market trends (MV_EC1), Competitor analysis (MV_EC2), Employee development (MV_EC3), Technology usage (MV_EC4), Alignment with societal trends (MV_EC5)
Diagnostic Capability	Resource efficiency (MV_DC1), Reputation monitoring (MV_DC2), Customer needs perception (MV_DC3), Service improvement (MV_DC4), Operational flexibility (MV_DC5, MV_DC6)
Decision and Budget Authority	Task definition (MV_DA1), Employee involvement (MV_DA2), Crisis decision-making (MV_DA3), Resource cost-effectiveness (MV_DA4), Cost control (MV_DA5, MV_DA6)
Fintech Innovations	Innovation launch (FIN1), Customization to customer needs (FIN2), Investment in fintech (FIN3), Technological leadership (FIN4), Technology trend monitoring (FIN5), Adoption of new technologies (FIN6, FIN7)
Bank Performance	Return on Investment (ROI) (BP1), Profits (BP2), Market share growth (BP3), Financial assets (BP4), Non-financial assets (BP5), Customer satisfaction (BP6), Customer loyalty (BP7), Attracting new customers (BP8), Reputation improvement (BP9)

Source: Prepared by the researchers based on previous studies.

The questionnaire was developed using a five-point Likert scale to measure respondents' perceptions of the study's topic.

3. Study Sample:

The study population includes all bank managers, department heads, and administrative staff at the banks under investigation. Specifically, there are 15 employees at the Algerian National Bank (BNA), 15 at CPA Bank, and 25 at BEA Bank, totaling 55 employees. Questionnaires were distributed manually to all members of the population, and 50 valid responses were returned for analysis. Due to the small size of the population it was considered as the study sample.

3.1 The Reliability of The Study Tool:

This refers to how consistent the results of the questionnaire are when administered multiple times to the same sample under the same conditions and over a certain period. To measure the instrument's stability, we used Cronbach's alpha coefficient, with values ranging from 0 to 1 where a value of 0.7 or higher is considered acceptable.

Figure (03): The Reliability of The Study Tool Using Cronbach's Alpha Coefficient

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Title	Number of Items	Cronbach's Alpha
All the questionnaire	38	0,943

Source: Designed by researchers based on the results of the questionnaire

It is evident from the figure (03) above that the overall reliability coefficient of the questionnaire is very high, reaching 0.943 for all 38 items, which exceeds the acceptable threshold of 0.70.

3.2 Internal Consistency Validity of The Study Tool:

Testing the validity of the research instrument ensures its suitability for the study's objectives, meaning it accurately measures what it is intended to measure. To verify the internal consistency validity of the questionnaire, Pearson correlation coefficients were calculated between the score of each item in the three dimensions and the total score of the corresponding dimension, using SPSS statistical software. The table below presents the correlation coefficients for each item in the first dimension and the total score of that dimension.

Figure (04): The Internal Consistency of The Study Tool

MARKETING VIGILANCE							
Enviromental Scanning		Diagnostic Capability		Decision and Budget Authority			
Items	Correlation	Items	Correlation	Items	Correlation	Items	Correlation
MV_EC1	0.731**	MV_DC1	0.615**	MV_DA1	0.637**		
MV_EC2	0.786**	MV_DC2	0.746**	MV_DA2	0.880**		
MV_EC3	0.602**	MV_DC3	0.830**	MV_DA3	0.609**		
MV_EC4	0.795**	MV_DC4	0.785**	MV_DA4	0.771**		
MV_EC5	0.613**	MV_DC5	0.803**	MV_DA5	0.818**		
/	/	MV_DC6	0.822**	MV_DA6	0.702**		
FINTECH INNOVATIONS				BANK PERFORMANCE			
Items	Correlation	Items	Correlation	Items	Correlation	Items	Correlation
FIN1	0.836**	FIN6	0.865**	BP1	0.734**	BP6	0.767**
FIN2	0.828**	FIN7	0.840**	BP2	0.775**	BP7	0.702**
FIN3	0.878**	/	/	BP3	0.769**	BP8	0.712**
FIN4	0.777**	/	/	BP4	0.674**	BP9	0.786**
FIN5	0.864**	/	/	BP5	0.829**	/	/
**. The correlation is significant at the 0.01 level (bilateral).							
*. The correlation is significant at the 0.05 level (bilateral).							

Source: Designed by Researchers Based on The Outputs of SPSS 22

The table above indicates that in the second section, which addresses Marketing Vigilance, the correlation values for the first dimension focusing on environmental scanning, range from 0.613 to 0.795, all statistically significant at the 0.05 level. This demonstrates that the statements align consistently with the dimension, confirming their internal consistency, validity, and suitability for measurement. For the second dimension in this section, related to diagnostic Capability, the correlation values range from 0.615 to 0.830, all of which are also statistically significant at the 0.05 level. This confirms that the items are internally consistent with the dimension and valid for measurement. The third dimension, focusing on Decision and

Budget Authority, shows correlation values between 0.609 and 0.880, all statistically significant at the 0.05 level. This indicates that the items in this dimension are internally consistent, reliable, and appropriate for measurement.

In the third section, which examines Fintech Innovations, the correlation values range from 0.777 to 0.878, all statistically significant at the 0.05 level. These values reflect a strong alignment of the statements with their section, verifying their internal consistency and validity for measurement. Lastly, in the fourth section, which focuses on Bank Performance, the correlation values range from 0.702 to 0.829, all statistically significant at the 0.05 level. This confirms that the statements are consistent with their section and are both valid and suitable for measurement.

4. Results Analysis :

4.1 Sample Characteristics:

Figure (05) :The demographic characteristics of the respondents

Variables	Categories	Frequency	Percentage %
Age	24-29 Years	2	4
	30-39 Years	23	46
	40-49 Years	14	28
	50 Years and above	11	22
Sex	Male	26	52
	Female	24	48
Educational Level	Secondary	10	20
	Bachelor's degree	27	54
	Higher studies	13	26
Experience	Less than 10 years	23	46
	11-15 Years	9	18
	Above 15 years	18	36
Position	Manager	4	8
	Head of departement	12	24
	Administrative Employee	34	68

Source: Designed by Researchers Based on The Outputs of SPSS 22

The sample is primarily composed of individuals aged 30-39 years, who make up 46% of the group, followed by those aged 40-49 years at 28%. Individuals aged 50 years and above represent 22%, while the 24-29 age group accounts for only 4%. The gender distribution is nearly balanced, with 52% male and 48% female participants. In terms of educational attainment, 54% hold a bachelor's degree, while 20% have completed secondary education. Regarding professional experience, 46% of participants have less than 10 years of experience, and 36% have over 15 years. In terms of job positions, 68% occupy administrative roles, 24% are department heads, and 8% hold managerial positions.

4.2 Descriptive Statistical Analysis of the Study Domains:

In this part of the study, we measured the degree of adoption of the Marketing Vigilance concept, Fintech Innovations and the Performance in CPA, BNA and BEA Banks. This was done using descriptive statistical measures such as the Mean and Standard Deviation, where

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each item of the sections was analyzed and final results were derived. The following scale adopted by the researchers was used to determine the degree of adoption:

- From **1** to **1.79**: **Very Low**
- From **1.80** to **2.59**: **Low**
- From **2.60** to **3.39**: **Medium**
- From **3.40** to **4.19**: **High**
- From **4.20** to **5**: **Very High**
- **Analysis of the Second Section on Marketing Vigilance:**
This section includes three dimensions: **Environmental Scanning**, **Diagnostic Capability**, and **Decision and Budget Authority**. And it consists of 17 items.

Figure (06): Analysis of the Marketing Vigilance

Marketing Vigilance			
First dimension : Enviromental Scanning			
Items	Mean	Standard Deviation	Degree of Adoption
MV_EC2	2.43	1.062	Low
MV_EC4	2.43	1.042	Low
MV_EC1	1.98	0.915	Low
MV_EC5	1.82	0.800	Low
MV_EC3	1.80	0.808	Low
TOTAL	2.0560	0.66153	Low
Second dimension : Diagnostic Capability			
Items	Mean	Standar Deviation	Degree of Adoption
MV_DC6	2.54	1.092	Low
MV_DC3	2.18	0.935	Low
MV_DC2	2.14	0.926	Low
MV_DC5	2.04	0.925	Low
MV_DC1	2.02	0.892	Low
MV_DC4	1.94	0.935	Low
TOTAL	2.1433	0.73849	Low
Third dimension : Decision and Budget Authority			
Items	Mean	Standar Deviation	Degree of Adoption
MV_DA2	2.84	1.131	Medium
MV_DA5	2.82	1.119	Medium
MV_DA4	2.70	1.093	Medium
MV_DA3	2.30	0.886	Low
MV_DA6	2.24	0.960	Low
MV_DA1	2.18	1.004	Low
TOTAL	2.51	0.76772	Low

Source: Designed by Researchers Based on The Outputs of SPSS 22

The table above reveals that the banks under study exhibit low adoption across various dimensions. The environmental scanning dimension has a mean of 2.056 and a standard deviation of 0.66, indicating limited implementation and consensus on its insufficient

application. Similarly, the diagnostic capability dimension shows a mean of 2.14 with a standard deviation of 0.73, reflecting underdevelopment in this area, with the sample agreeing on its low level of implementation. Finally, the Decision and Budget Authority dimension, with a mean of 2.51 and a standard deviation of 0.76, highlights inadequate adoption, as the majority of the sample concurs on its limited presence in these banks.

- **Analysis of the Third Section on Fintech Innovation:**

This section includes 7 items, as detailed in the figure (02) and designed to assess the degree of adoption of Fintech Innovations by the banks under the study (CPA, BNA, BEA).

Figure (07): Analysis of the Fintech Innovation items

Fintech Innovations			
Items	Mean	Standar Deviation	Degree of Adoption
Fin4	2.78	0.910	Medium
Fin5	2.54	0.885	Low
Fin3	2.48	0.995	Low
Fin2	2.46	0.908	Low
Fin7	2.44	0.861	Low
Fin6	2.40	0.857	Low
Fin1	2.32	0.913	Low
TOTAL	2.4886	0.76092	Low

Source: Designed by Researchers Based on The Outputs of SPSS 22

The analysis of the fintech innovations section reveals an overall low level of adoption among the banks under study (CPA, BNA, BEA), with a total mean of 2.49 and a standard deviation of 0.76. Among the individual items, only Fin4 (pioneering financial technological innovations) scored a medium level of availability (mean = 2.78, SD = 0.91), indicating moderate leadership in innovation. However, all other items, such as monitoring technological trends (Fin5, mean = 2.54, SD = 0.89), significant investment in fintech innovations (Fin3, mean = 2.48, SD = 1.00), and customization of financial technology to meet customer needs (Fin2, mean = 2.46, SD = 0.91), and item about effort and resources focused on innovations and developing new ideas (Fin7, mean = 2.44, SD = 0.861), about ataking into account the bank's plan and the current use of thechnology (Fin6, mean = 2.40, SD = 0.857), reflected low availability levels. The lowest score was observed for the regular launching of new fintech innovations (Fin1, mean = 2.32, SD = 0.91), highlighting minimal efforts in this area. These findings suggest that the banks under study exhibit limited adoption of financial technology innovations, with notable gaps in investment, strategic alignment, and innovation efforts, necessitating substantial improvements to enhance their technological capabilities.

- **Analysis of The Fourth Section on Bank Performance:**

This section includes 9 items, as detailed in the figure (02) and designed to measure the

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performance of the banks under study(CPA, BNA, BEA).

Figure (08): Analysis of Bank Performance Items

Items	Mean	Standar Deviation	Level of agreement
BP5	2.48	0.863	Low
BP4	2.36	1.005	Low
BP7	2.28	0.784	Low
BP3	2.24	0.797	Low
BP2	2.16	0.710	Low
BP6	2.14	0.756	Low
BP1	2.14	0.670	Low
BP8	1.98	0.769	Low
BP9	1.92	0.752	Low
TOTAL	2.1889	0.59062	Low

Source: Designed by Researchers Based on The Outputs of SPSS 22

The table shows that BP5 achieved the highest mean value of 2.48 with a standard deviation (SD) of 0.843 and a low level of agreement. This indicates that the study sample largely agrees there is only a slight increase in non-financial assets for the banks under study. BP4 recorded a mean value of 2.36, an SD of 1.005, and a low level of agreement, suggesting a minor increase in financial assets for these banks. BP7 which relates to enhancing customer loyalty for the banks under study had a mean value of 2.28 and an SD of 0.797, with a low level of agreement. This is followed by BP3 concerning the increase in the market share compared to competitors, which recorded a mean value of 2.24, an SD of 0.797 and a similarly low level of agreement. For BP2 which addresses the increase in profits for the banks under study compared to competitors, the mean value was 2.16 with an SD of 0.710, and the level of agreement remained low. Similarly to BP6 focused on improving customer satisfaction, recorded a mean value of 2.14, an SD of 0.756 and a low level of agreement. The lowest mean values were observed for BP1, BP8, and BP9. For BP1 concerning the increase in return on investment (ROI), recorded a mean value of 2.14 with an SD of 0.670. BP8 which relates to attracting new customers, had a mean value of 1.98, an SD of 0.769 and a low level of agreement. Finally, BP9, regarding improving the reputation of the banks under study in the market, recorded the lowest mean value of 1.92, with an SD of 0.752, and a low level of agreement.

The table shows that the section related to bank performance recorded a total mean value of 2.19 with a standard deviation (SD) of 0.6 and a low level of agreement. This indicates that the targeted sample unanimously agrees on the low performance of the banks under study.

5. The Statistical Test For The Study Hypotheses:

5.1 Analysis and Discussion of the Results for Hypothesis 1:

H0: The marketing vigilance and its dimensions do not have a significant influence on bank performance in CPA, BNA, and BEA banks in Jijel.

H1: The marketing vigilance and its dimensions have significant influence on bank performance in CPA, BNA and BEA banks in Jijel

Hypothesis 1 was tested using **simple linear regression**, where the hypothesis is accepted

if the significance level (Sig) is less than or equal to 0.05.

Figure (09) : The results of the linear regression analysis of marketing vigilance on banking performance.

/	Independent Variable (X) : Marketing Vigilance				
	Correlation Coefficient (R)	Coefficient of determination (R ²)	Regression Coefficient (β)	F	sig
Dependent Variable(Y) :Bank Performance	0.637	0.406	0.637	32.748	0.000

Source: Designed by Researchers Based on The Outputs of SPSS 22

The table shows that the correlation coefficient (R) is 0.637, indicating a strong positive relationship between marketing vigilance and banking performance. The coefficient of determination (R²) is 0.406, meaning that 40.6% of the variation in banking performance is explained by marketing vigilance while the remaining 59.4% is attributed to other factors. The regression coefficient is 0.637, suggesting that a one-unit increase in marketing vigilance leads to a 0.63 increase in banking performance. Additionally, the F-value is 32.748 with a significance level of 0.000, which is below the level of significance of 0.05. Thus, the linear regression equation is:

$$Y = a + bX$$

$$Y = 0.840 + 0.637X$$

Based on the above, the results confirm the rejection of the null hypothesis and the acceptance of the alternative hypothesis, meaning the marketing vigilance and its dimensions have significant influence on bank performance at a significance level of 0.05 in CPA, BNA and BEA Banks in Jijel.

5.2 Analysis and Discussion of the Results for Hypothesis 2:

H0: The marketing vigilance and its dimensions do not have a significant influence on fintech innovations in CPA, BNA and BEA banks in Jijel.

H1: The marketing vigilance and its dimensions have significant influence on fintech innovations in CPA, BNA and BEA banks in Jijel.

Hypothesis 2 was tested using **simple linear regression**, where the hypothesis is accepted if the significance level (Sig) is less than or equal to 0.05.

Figure (10) : The results of the linear regression analysis of marketing vigilance on fintech innovations

/	Independent Variable (X) : Marketing Vigilance				
	Correlation Coefficient (R)	Coefficient of determination (R ²)	Regression Coefficient (β)	F	sig
Dependent Variable (Y) : Fintech Innovations	0.719	0.517	0.719	51.474	0.000

Source: Designed by Researchers Based on The Outputs of SPSS 22

The table shows that the correlation coefficient (R) is 0.719, indicating a strong positive relationship between marketing vigilance and Fintech innovations. The coefficient of determination (R²) is 0.517, meaning that 51.7% of the variation in Fintech innovations can be explained by marketing vigilance, while the remaining 48.3% is attributed to other factors. The regression coefficient (β) is 0.719, suggesting that a one-unit increase in marketing vigilance results in a 0.719 increase in Fintech innovations. Additionally, the F-value is 51.474 with a

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significance level of 0.000, which is well below the level significance of 0.05. And the linear regression equation is $Y = 0.525 + 0.719X$.

The results confirm the rejection of the null hypothesis and the acceptance of the alternative hypothesis, meaning the marketing vigilance and its dimensions have significant influence on fintech innovations at a significance level of 0.05 in CPA, BNA and BEA Banks in Jijel.

5.3 Analysis and Discussion of the Results for Hypothesis 3:

H0: Fintech innovation does not have significant influence on bank performance in CPA, BNA and BEA banks in Jijel.

H1: Fintech innovation does not have a significant influence on bank performance in CPA, BNA, and BEA banks in Jijel.

Hypothesis 3 was tested using **simple linear regression**, where the hypothesis is accepted if the significance level (Sig) is less than or equal to 0.05.

Figure (11) : The results of the linear regression analysis of fintech innovations on bank performance

/	Independent Variable (X) : Fintech Innovations				
	Correlation Coefficient (R)	Coefficient of determination (R ²)	Regression Coefficient (β)	F	sig
Dependent Variable (Y) : Bank Performance	0.658	0.432	0.658	36.570	0.00

Source: Designed by Researchers Based on The Outputs of SPSS 22

The table shows that the correlation coefficient (R) is 0.658, indicating a strong positive relationship between Fintech innovations and bank performance. The coefficient of determination (R²) is 0.432 meaning that 43.2% of the variation in bank performance can be explained by Fintech innovations while the remaining 56.8% is attributed to other factors. The regression coefficient (β) is 0.658, suggesting that a one-unit increase in Fintech innovations results in a 0.658 increase in bank performance. Additionally, the F-value is 36.570 with a significance level of 0.000, which is well below the level significance of 0.05. And the linear regression equation is $Y = 0.919 + 0.658X$.

The results confirm the rejection of the null hypothesis and the acceptance of the alternative hypothesis meaning the fintech innovations has significant influence on bank performance at a significance level of 0.05 in CPA, BNA and BEA banks in Jijel.

5.4 Analysis and Discussion of the Results for Hypothesis 4:

H0: Fintech innovation is not significantly mediating the relationship between marketing vigilance and bank performance in CPA, BNA, and BEA banks in Jijel.

H1: Fintech innovation is significantly mediating the relationship between marketing vigilance and bank performance in CPA, BNA, and BEA banks in Jijel.

This hypothesis was tested using **multiple linear regression**, where all the study sections were analyzed together, as shown in the following table:

Figure (12) : The results of the multiple linear regression analysis of the study sections

/	Marketing vigilance (X1), Fintech Innovations (X2)			
	Correlation Coefficient (R)	Coefficient of determination (R ²)	F	sig
Dependent Variable (Y) : Bank				

Performance	0.699	0.488	22.401	0.000
Y= 0.320X1 + 0.321X2 + 0.671 Sig 0.029 Sig 0.008				

Source: Designed by Researchers Based on The Outputs of SPSS 22

From the table above, it is observed that the correlation coefficient (R) is 0.699, indicating a strong positive relationship between marketing vigilance, fintech innovations and banking performance. The coefficient of determination (R^2) is 0.488, meaning that 48.8% of the variations in banking performance are explained by marketing vigilance and fintech innovations, while the remaining 51.2% is attributed to other factors. The F-value is 22.401 with a significance level of 0.000, which is below the significance level 0.05.

The table shows that marketing vigilance has an impact on banking performance, as its significance level is 0.029 which is less than 0.05, indicating that marketing vigilance affects banking performance when combined with other explanatory variables. Similarly, fintech innovations influence banking performance with a significance level of 0.008, also below the significance level of 0.05, confirming that fintech innovations have an impact on banking performance when combined with other explanatory variables.

Based on the above, the results confirm the rejection of the null hypothesis and the acceptance of the alternative hypothesis, Fintech innovation is significantly mediating the relationship between marketing vigilance and bank performance in CPA, BNA, and BEA Banks in Jijel.

Conclusion:

The study results revealed that the banks under study (CPA, BNA, BEA) show a significant weakness in adopting marketing vigilance dimensions, including environmental scanning, diagnostic capability, and decision and budget authority. This shortfall has limited their ability to analyze market dynamics, anticipate risks and opportunities, and make strategic decisions effectively. Additionally, the findings indicated a low level of fintech innovation adoption within these banks, reflecting insufficient investments in financial technology and innovative products. These deficiencies have directly impacted their performance, as evidenced by weak indicators such as return on investment, customer satisfaction, and market share growth. The results demonstrated that marketing vigilance explains 40.6% of the changes in bank performance and strongly influences fintech innovations, accounting for 51.7% of their variation. Fintech innovations also directly contributed 43.2% to performance improvements and played a mediating role in amplifying the positive effect of marketing vigilance on performance. These findings highlight the urgent need for these banks to strengthen their marketing vigilance strategies and focus on fintech innovation adoption to address their performance challenges effectively.

These are some recommendations:

- **Improve Marketing Vigilance:** CPA, BNA, and BEA banks should enhance market research and train staff to better understand customer needs and market trends.
- **Adopt More Fintech Innovations:** Invest in digital tools like mobile banking and AI to modernize services and stay competitive.
- **Combine Marketing and Technology:** Align fintech projects with marketing goals to create better customer experiences.
- **Focus on Customers:** Offer personalized services, improve user-friendly tools, and

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build stronger customer loyalty.

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