



## THE SECOND INTERNATIONAL CONFERENCE ON SCIENTIFIC, ECONOMIC AND SOCIAL ISSUES

### DIGITAL TRANSFORMATION, COOPERATION AND GLOBAL INTEGRATION IN THE NEW NORMAL

#### SPONSORS

**Sacombank**  
Đồng hành cùng phát triển



FINANCIAL PUBLISHING HOUSE

## TABLE OF CONTENT

### APPLICATION OF TECHNOLOGY AND BIG DATA IN THE FIELDS OF FINANCE, ACCOUNTING AND AUDITING IN THE CONTEXT OF GLOBALIZATION

BANK RUN AND SILICON VALLEY BANK .....	1
Lam Dang Xuan Hoa, Ho Minh Khoa, Huynh Vo Nhat Linh .....	1
BIG DATA AND INTELLECTUAL PROPERTY RIGHTS.....	14
Le Thi Minh, Vo Trung Hau .....	14
THE EFFICIENCY OF THE INTERNAL CONTROL SYSTEM IN RISK MANAGEMENT AT THE NAM A COMMERCIAL JOINT STOCK BANK .....	23
Truong Thanh Loc, Tran Ngoc Thanh.....	23
VIETNAM - AUSTRALIA ECONOMIC AND TRADE COOPERATION IN THE NEW NORMAL: OPPORTUNITIES AND CHALLENGES FOR VIETNAMESE INVESTORS.....	30
Nhu Nguyen Phuc Quynh*, Anh Nguyen Thi Nguyet, Duy Nguyen Anh .....	30
IMPACTS OF CREDIT GROWTH AND CREDIT RISK ON THE PROFIT OF VIETNAM JOINT STOCK COMMERCIAL BANKS .....	43
Dao Le Kieu Oanh*, Tran Thi Huong Ngan .....	43
FACTORS AFFECTING CUSTOMERS' DECISIONS TO USE E-BANKING AT JOINT STOCK COMMERCIAL BANKS IN HO CHI MINH CITY .....	57
Nguyen Duy Khanh <sup>1</sup> , Pham Quoc Tham <sup>2</sup> .....	57
HOW CHINA_USA POLITICAL TENSIONS AFFECT STOCK MARKET RETURN OF CHINA AND THE USA? A QUANTILE VAR CONNECTEDNESS APPROACH .....	70
Hao Wen Chang <sup>1</sup> , Tsangyao Chang <sup>2</sup> and Mei-Chih Wang <sup>3</sup> .....	70
BANKING HUMAN RESOURCES BEFORE THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE AI .....	92
Nguyen Huynh Chi.....	92
IMPROVE THE QUALITY OF TRAINING THROUGH IMPROVEMENT OF STUDENT TESTING AND ASSESSMENT – CASE IN ACCOUNTING BRANCH, UNIVERSITY OF ECONOMICS AND FINANCE .....	102
Thuy Thi Ha .....	102
ACTIVITIES OF DIGITAL TRANSFORMATION IN VIETNAMESE COMMERCIAL BANKS: AN OVERVIEW DURING THE COVID-19 RECOVERY PERIOD.....	109
Nguyễn Thị Quỳnh Châu, Đào Lê Kiều Oanh .....	109
OPPORTUNITIES AND CHALLENGES FOR VIETNAM IN ATTRACTIVE FDI IN GLOBAL MINIMUM CORPORATE TAX IMPLEMENTATION .....	117
Ngo Hoang Thong .....	117

## **DIGITAL ECONOMY IN VIETNAM, TRENDS AND POTENTIABILITY**

DEVELOPING SMART HOME MODEL FOR APARTMENTS IN HO CHI MINH CITY BASED ON INTERNET OF THINGS (IoT) TECHNOLOGY .....	182
Dang Thanh Thuy <sup>1</sup> , Nguyen Thanh Dien <sup>2</sup> .....	182
TRANSPARENCY OF ACCOUNTING INFORMATION OF CONSTRUCTION ENTERPRISES IN HO CHI MINH CITY – CASE STUDY OF APPLICATION OF ACCRUAL ACCOUNTING .....	193
Truong Thanh Loc <sup>1*</sup> , Pham Thi Yen Nhi <sup>2</sup> .....	193
FACTORS AFFECTING THE QUALITY OF FINANCIAL STATEMENTS OF MANUFACTURING ENTERPRISES IN HO CHI MINH CITY .....	207
Truong Thanh Loc <sup>*</sup> , Dang Nguyen Tuong Han, Nguyen Ngoc Mai Phuong, Nguyen Thi Quynh Huong .....	207
THE CRITICAL FACTORS OF COLLEGE STUDENTS' INTENTION TO USE METAVERSE TECHNOLOGY FOR SUBJECTS RELATED TO IMPORT-EXPORT LEARNING .....	221
Van Thuy Nguyen Ho, Chau The Huu, Luan Thanh Nguyen <sup>*</sup> .....	221
CONSUMER PERCEPTION ABOUT THE SUSTAINABILITY COMMITMENT OF LUXURY BRANDS IN VIETNAM AND CHINA MARKETS.....	233
Tran Minh Tu <sup>1</sup> .....	233
INFLUENCE OF WOM AND EWOM IN MAKING DECISION BUYING GOODS .....	247
Doan Anh Tu <sup>1</sup> , Kim Phi Rum <sup>2</sup> , Nguyen Pham Hai Ha <sup>3</sup> .....	247
DIGITAL ECONOMY AND DEVELOPMENT POTENTIAL IN VIETNAM.....	257
Hoang Thi Chinh, Nguyen Hoang Phan .....	257
BLOCKCHAIN APPLICATION IN MODERN LOGISTICS: INTERNATIONAL EXPERIENCE AND SOME RECOMMENDATIONS FOR VIETNAM .....	266
Nguyen Nu Tuong Vi.....	266
FACTORS AFFECTING THE DEVELOPMENT OF THE DIGITAL ECONOMY IN VIETNAM .....	272
Vo Tien Si .....	272
LEGAL FRAME FOR THE OPERATION OF THE REAL ESTATE BUSINESS UTILIZING THE BLOCKCHAIN PLATFORM IN VIETNAM.....	284
Le Thi Khanh Linh.....	284

## **DIGITAL TRANSFORMATION – COOPERATION – GLOBAL INTEGRATION IN BUSINESS**

FACTORS INFLUENCING BUSINESS ACCEPTANCE OF INDUSTRY 4.0 TECHNOLOGY APPLICATIONS IN DONG NAI PROVINCE.....	291
Thanh-Thu Vo*, Minh-Huong Tang.....	291
DIGITAL ORIENTATION, INNOVATION CAPABILITY AND FIRM PERFORMANCE: A PROPOSAL RESEARCH MODEL .....	298
Nguyen Van Hau .....	298
PREDICTION OF STUDENT'S BEHAVIORAL INTENTION TO USE SMART LEARNING ENVIRONMENT: A COMBINED MODEL OF SELF-DETERMINATION THEORY AND TECHNOLOGY ACCEPTANCE .....	309
Nguyen Thi Hai Binh <sup>1</sup> , Dao Y Nhi <sup>2</sup> , Nguyen Thanh Luan <sup>3</sup> , Dang Quan Tri <sup>4</sup> .....	309
THE PEDAGOGICAL IMPACT OF GRAMMARLY ON EFL WRITING COMPETENCY: AN EMPIRICAL INVESTIGATION IN HIGHER EDUCATION CONTEXT. ....	323
Nguyen Thi Hong Lien <sup>1</sup> , Nguyen Truong Gia Minh <sup>2</sup> , Nguyen Ngoc Vu <sup>3*</sup> .....	323
FACTORS AFFECTING PURCHASING DECISION OF THE YOUTH ON TIKTOK .....	336
Ngoc Pham <sup>1</sup> , Thanh Cong Tran*.....	336
FACTORS AFFECTING OCCUPATIONAL SAFETY BEHAVIORS OF WORKERS DIRECT PRODUCTION AT CU CHI POWER COMPANY.....	345
Minh Luan Le, Thi Trang Tran.....	345
CORPORATE SOCIAL RESPONSIBILITY AND EMPLOYEES' ORGANIZATIONAL CITIZENSHIP BEHAVIOUR.....	355
Nguyen Xuan Hung <sup>1</sup> , Ha Le Thu Hoai <sup>1</sup> , Nguyen Huu My Truc <sup>2&amp;3</sup> , Pham Tan Nhat <sup>2&amp;3</sup> .....	355
THE INNOVATION CAPACITY - THE ROLE OF LEADERS OF SMALL AND MEDIUM ENTERPRISES IN HO CHI MINH CITY, VIETNAM.....	365
Huynh Nhut Nghia .....	365
PEOPLE'S THOUGHTS ON THE IMPACT OF ARTIFICIAL INTELLIGENCE ON BUSINESS .....	376
Ton Nguyen Trong Hien, Bui Tuyet Anh .....	376
FACTORS AFFECTING BRAND SWITCHING INTENTION IN THE CONTEXT OF HIGHER EDUCATION IN VIETNAM .....	382
Ly Dan Thanh, Nguyen Phu Quoi, Tran Hoang Nam, Vo Hong Son, Nguyen Ngoc Thuy Tien .....	382
ENHANCE THE DIGITAL COMPETITIVENESS .....	398
Tran Quang Canh, Hoang Thi Chinh.....	398

ASSESSING PATIENT SATISFACTION (BRAND) AFTER THE COVID-19 PANDEMIC AT THU DUC CITY HOSPITAL.....	408
Nguyen Hoang Dung <sup>1*</sup> , Nguyen Huynh Bao An <sup>2</sup> , Van Phuong Trang <sup>2</sup> .....	408
INDUSTRIAL AND HUMAN RESOURCES FORM THE FOUNDATION FOR BINH DUONG'S SUSTAINABLE ECONOMIC DEVELOPMENT .....	408
Hoang-An Nguyen .....	417
IMPACT OF ORGANIZATIONAL FAIRNESS ON THE EMPLOYEES' KNOWLEDGE SHARING IN TRAVEL AND TOURISM ENTERPRISES IN HO CHI MINH CITY .....	426
Le Thi Nhu Quynh <sup>1,2</sup> , Le Thi Giang <sup>2</sup> , Truong Quang Dung <sup>1</sup> .....	426
THE EFFECT OF PERSONAL MOTIVATION ON THE TACIT KNOWLEDGE SHARING BEHAVIOR OF 5-STAR HOTELS' EMPLOYEES IN HO CHI MINH CITY .....	440
Le Thi Giang, Nguyen Bach Hoang Phung.....	440
DIGITAL COMPETITIVENESS AND OPERATIONAL EFFICIENCY OF ENTERPRISES IN THE DIGITAL ERA: THE CASE OF VIETNAMESE ENTERPRISES .....	453
Diep Nguyen Thi Ngoc <sup>1*</sup> , Canh Quang Tran <sup>2</sup> , Anh Bach Hoang Ngoc <sup>1</sup> .....	453
FACTORS INFLUENCING PARENTS' SELECTION OF PRIVATE PRESCHOOLS IN THU DUC CITY .....	466
Thi-Trang Tran <sup>1</sup> , Thi-My-Dung Pham <sup>2</sup> , Thi-Bich-Diep Le <sup>1*</sup> .....	466

## **RECOVERY COMMUNICATIONS IN THE TOURISM AND HOSPITALITY INDUSTRY AFTER THE COVID-19 PANDEMIC**

DEVELOPING A SPIRITUAL TOURISM DESTINATION IMAGE MEASUREMENT SCALE OF AN GIANG .....	474
Nguyen Vuong Hoai Thao <sup>1</sup> , Nguyen Quyet Thang <sup>2</sup> .....	474
PROSPECTS OF VIRTUAL REALITY TOURISM APPLICATION IN VIETNAM TOURISM PROMOTION .....	487
Nguyen Thi Hong Ha, Pham Thi Huong Giang.....	487
PERSONALIZATION TRAVEL TRENDING IN HO CHI MINH CITY IN THE CONTEXT OF POST COVID-19 .....	497
Duong Bao Trung.....	497
IMPACTS OF MEDIA ON CUSTOMERS' DECISION TO CHOOSE FOOD AND BEVERAGE SERVICES POST THE COVID-19 PANDEMIC .....	511
Nguyen Thi Bich Van .....	511
DIGITAL TRANSFORMATION APPLICATION TO PROMOTE THE RECOVERY AND DEVELOPMENT OF INBOUND TOURISM IN HO CHI MINH CITY .....	521
Tran Trong Thanh .....	521
VIETNAM TOURISM AFTER COVID-19 PANDEMIC .....	527
Nguyen Hoang Phan <sup>1</sup> , Hoang Thi Chinh <sup>2</sup> .....	527
NAVIGATING THE EVOLVING LANDSCAPE OF SOCIAL MEDIA DATA MINING AND PRIVACY .....	537
Pham Thai Hien .....	537
THE CORRELATION BETWEEN STUDENT SELF-REPORTED GENERAL WELL-BEING AND PERCEIVED SUPPORT FROM FRIENDS, TEACHERS, AND UNIVERSITY .....	545
Virginia Kelsey <sup>1</sup> , Đặng Thị Mai Ly <sup>2*</sup> , Nguyễn Anh Khoa <sup>2</sup> , Nguyễn Văn Tường <sup>2</sup> .....	545

## **DIGITAL VERSUS NON- DIGITAL**

PROVIDING CONVENIENCE TO CUSTOMERS IN THE DIGITAL MARKETING ERA: OBSERVATIONS FROM COMMERCIAL BANKS IN HO CHI MINH CITY .....	556
Nguyen Quang Trung .....	556
VIRTUAL REALITY: AN INNOVATIVE TOOL IN TOURISM EXPERIENTIAL MARKETING .....	564
Thanh Nguyen Ngoc Le <sup>1</sup> , Khuong Thanh Nguyen <sup>2</sup> .....	564
THEORETICAL CONCEPTS OF STRATEGIC POSITIONING FOR PLACE BRANDING: A CASE STUDY OF DONG THAP PROVINCE .....	580
Phan Bao Giang.....	580
LITERATURE REVIEW ON THE IMPACT OF DIGITAL MARKETING ON VIETNAM'S SMALL AND THE MEDIUM BUSINESS ENTERPRISES (SMEs) .....	587
Lê Kim Nguyên * .....	587

## **CHALLENGES FACED BY TEACHERS IN NON-TRADITIONAL EDUCATION**

PROPOSE AN ONLINE TEACHING COMPETENCE SCALE FOR UNIVERSITY LECTURERS .....	596
Duong Thi Kim Oanh*, Dang Thi Dieu Hien .....	596
EXAMINE USAGE OF LEARNING MANAGEMENT SYSTEMS (LMSS) BY FACULTY STAFF AT UNIVERSITY OF ECONOMICS (UEF) AND FINANCE WITH EXPANDED TECHNOLOGY ACCEPTANCE MODEL (TAM).....	608
Ha Truong Minh Hieu, Ngo Minh Hai*, Mach Tran Huy.....	608



**DIGITAL TRANSFORMATION  
AN INDISPENSABLE EVOLUTION FOR SUSTAINABLE CORPORATES**

FACTORS AFFECTING THE APPLICATION OF STRATEGIC MANAGEMENT ACCOUNTING AT MANUFACTURING ENTERPRISES IN BINH DUONG PROVINCE .....	618
Truong Thanh Loc <sup>1*</sup> , Nguyen Thi Thanh Truc <sup>2</sup> .....	618
HRM DIGITAL TRANSFORMATION: TAKING A ROAD OF SUCCESSION PLANNING ..	629
Trương Phan Hoàng Anh, Giang Ngọc Anh.....	629
THE IMPLICATION OF CONTACTLESS SERVICE AS A TOOL TO IMPROVE CUSTOMER REVISIT INTENTION .....	640
Linh, Nguyen Duy Yen* .....	640
TOURISM BRAND LOVE IN THE DIGITAL AGE: THE ROLE OF ONLINE TOURIST EXPERIENCES, TOURIST-BRAND RELATIONSHIP QUALITY AND SUSTAINABILITY .....	651
Thanh Nguyen Ngoc Le .....	651
CONDUCTING FOCUS GROUPS IN CROSS-CULTURAL SCHOLARSHIP OF TEACHING AND LEARNING (SoTL): A COMPARATIVE CASE STUDY .....	662
Punithan Moganathas <sup>1</sup> , Jenny Hill <sup>2</sup> , Andy V.-M. Kok <sup>2</sup> , Matt Barr <sup>2</sup> , Ruffin Relja <sup>2*</sup> , Philippa Ward <sup>2</sup> , Duong Tran Quang Hoang <sup>3</sup> , Quynh Phuong Tran <sup>3</sup> .....	662
LEVERAGING DIGITAL TRANSFORMATION FOR SUSTAINABLE CORPORATE EVOLUTION IN VIETNAM .....	677
Nguyen,Tan Dat <sup>1</sup> , Le,Dinh Thang <sup>2</sup> .....	677

## INFORMATION TECHNOLOGY AND APPLICATIONS

FB-PROPHET MODEL FOR TIME SERIES FORECASTING IN SALES .....	691
Thanh Cong Tran .....	691
USING AI CODE IN C# PROGRAMMING .....	698
Nguyen Ha Giang.....	698
DETERMINANTS OF CONTINUANCE USAGE INTENTION OF MOBILE FOOD ORDERING APPLICATIONS (MFOAS) AMONG VIETNAMESE USERS: THE MEDIATING ROLE OF E- SATISFACTION .....	705
Lam Hoang Phuong <sup>1*</sup> , Nguyen Thi Kim Lien <sup>2</sup> , Tien Hung Nguyen <sup>3</sup> , Vinh Long Nguyen <sup>4</sup> .....	705
DECODING MARKETING INSIGHT: INSIGHT FROM OUTSIDE.....	718
Hoàng Thị Hằng, Trần Thành Công* .....	718
DIGITAL DISRUPTION AND DATA SECURITY: HOW FINTECH IS RESHAPING BANKING ...	724
Hoàng Văn Hiếu, Trần Ngọc Thiên Ngân.....	724

## **TRENDS AND ISSUES IN ENGLISH LANGUAGE EDUCATION AND RESEARCH**

EFL LEARNERS' ATTITUDES AND LEARNING ENGAGEMENT IN COMMUNICATIVE GAME-BASED GRAMMAR TEACHING .....	736
Nguyen Thi Thanh Huyen <sup>1</sup> , Tran Quoc Thao <sup>2</sup> .....	736
APPROACHES TO TEACHING L2 LISTENING:.....	749
CLOSING THE GAP BETWEEN REAL-LIFE AND CLASSROOM-BASED LISTENING .....	749
Luu Thi Mai Vy .....	749
DEFINING ROLES OF STUDENT ENGAGEMENT IN THE 21ST CENTURY LANGUAGE CLASSROOM .....	755
Ho Xuan Tien, Duong My Tham.....	755
EFL STUDENTS' ATTITUDES AND LEARNING INVESTMENT IN PORTFOLIO - BASED ENGLISH WRITING LEARNING: A LITERATURE REVIEW .....	763
Ly Gia Huy <sup>1</sup> , Tran Quoc Thao <sup>2</sup> .....	763
EXPLORING EFL LEARNER IDENTITIES IN PROJECT-BASED LANGUAGE LEARNING AT A HIGH SCHOOL IN AN GIANG PROVINCE .....	774
Nguyen Hong Thien <sup>1</sup> , Tran Quoc Thao <sup>2</sup> .....	774
THE VALUES OF SYNTACTIC COMPLEXITY IN ACADEMIC WRITING: A LITERATURE REVIEW .....	791
THE ISSUE OF AMBIGUITY IN THE ENGLISH LANGUAGE.....	801
Nguyen Dinh Tuan .....	801
RESEARCH PERSPECTIVES ON JUNIOR HIGH SCHOOL EFL STUDENTS' MOTIVATION IN ENGLISH LANGUAGE LEARNING .....	812
Huynh Thanh Nhon <sup>1</sup> , Tran Quoc Thao <sup>2</sup> .....	812
EXPLORING THE INFLUENCE OF WRITING ANXIETY ON VIETNAMESE ESL UNDERGRADUATES' WRITING PERFORMANCE: A QUANTITATIVE STUDY.....	821
Nguyen Ngoc Nguyen, Nguyen Hoang Phan.....	821
THE APPLICATION OF THE “FLIPPED CLASSROOM” MODEL IN TEACHING ENGLISH IN THE VIETNAMESE UNIVERSITY EDUCATION ENVIRONMENT .....	838
THE USE OF RESOURCE MANAGEMENT STRATEGIES IN EFLFLIPPED CLASSROOMS .....	847
Nguyen Quynh Thao Vy <sup>1,*</sup> , Duong My Tham <sup>2</sup> .....	847
INSIGHTS INTO ENGLISH MAJOR STUDENTS' USE OF PHRASAL VERBS IN ACADEMIC WRITING.....	860
Do Thi Thanh Thuy, Tran Quoc Thao .....	860

## **LAW IN THE CONTEXT OF INTERNATIONAL INTEGRATION**

LEGALISING INTELLECTUAL PROPERTY INFRINGEMENTS IN RUSSIA – A WAR TACTIC IN THE CONTEXT OF RUSSIA’S INVASION OF UKRAINE.....	869
Bui Thi Hong Ninh* .....	869
MODEL OF ASSET REGISTRATION WORLDWIDE AND LESSONS FOR VIETNAM IN IMPROVING ASSET REGISTRATION LAWS.....	880
Vu Anh Sao <sup>1,2</sup> , Nguyen Thi Xuan Mai <sup>2</sup> .....	880
LEGAL ISSUES ARISING FROM THE DEVELOPMENT, IMPLEMENTATION, AND USE OF ARTIFICIAL INTELLIGENCE (AI) - INTERNATIONAL EXPERIENCES AND LESSONS FOR VIETNAM .....	887
Le Hoang Minh Huy*, Nguyen Thi Thu Ha, Dao Trong Duc, Ky Dieu Linh, Bui Thi Thuy Linh, Nguyen Nam Trung.....	887
SOUTH KOREA’S EXPERIENCES ON PROPERTY REGISTRATION LAW - LESSONS FOR VIETNAM .....	896
Vu Anh Sao, Pham Huynh Bao Oanh.....	896
THE RISE OF REMOTE WORK: LEGAL CHALLENGES AND IMPLICATIONS FOR EMPLOYMENT LAW IN VIETNAM .....	903
Nguyen Thi Xuan Mai <sup>1</sup> , Nguyen Thi Ngoc Loan <sup>2</sup> .....	903
CHALLENGES AND RECOMMENDATIONS FOR THE LEGAL FRAMEWORK IN THE EMERGING AGE OF ARTIFICIAL INTELLIGENCE.....	910
Nguyen Thi Thu Trang .....	910
THE IMPACTS OF GLOBAL MINIMUM TAX ON FOREIGN DIRECT INVESTMENT (FDI) CORPORATIONS IN VIETNAM.....	921
Trần Ngọc Thanh <sup>1</sup> .....	921
CROSS-BORDER E-COMMERCE ACTIVITIES AND TAX MANAGEMENT ISSUES .....	933
Le Huynh Phuong Chinh, Ngo Thi Khanh Linh, Pham Ngoc Lan Anh.....	933
EXPERIENCE IN KOREA AND CHINA ON TAX MANAGEMENT FOR CROSS-BORDER E-COMMERCE ACTIVITIES .....	941
Duong Anh Son <sup>1</sup> , Tran Vang Phu <sup>2</sup> .....	941
LEGAL PERSPECTIVE ON REGULATIONS RALATED TO PERSONAL INCOME TAX WHEN EARNING INCOME THROUGH E-COMMERCE PLATFORMS IN VIETNAM, TAKING THE CASE OF INDIVIDUALS DOING BUSINESS THROUGH TIKTOK APPLICATION.....	946
Nguyen Duc Tri <sup>1</sup> , Hoang Minh Châu <sup>2</sup> .....	946
THE COMPATIBILITY ON THE SCOPE OF MUTUAL LEGAL ASSISTANCE (MLA) IN CRIMINAL MATTERS AND THE CONDITIONS OF REFUSAL MLA IN CRIMINAL MATTERS BETWEEN VIETNAMESE LAW AND INTERNATIONAL TREATIES WHICH VIETNAM HAS SIGNED. ....	956

Pham Huynh Bao Oanh.....	956
TAX POLICY FOR E-COMMERCE OF COUNTRIES IN THE WORLD AND RECOMMENDATIONS TO VIETNAM.....	967
Nguyen Thanh Minh Chanh, Ha Thi Van Anh, Pham Lam Tam Nhu .....	967
LEGAL REGULATIONS FOR ENTERPRISE OBLIGATIONS TO PROVIDE INFORMATION ON E-COMMERCE PLATFORM .....	974
Truong Kim Phung*, Nguyen Hoang Chuong .....	974
“ROBOT TAX” – RECOMMENDATIONS FOR VIETNAM.....	981
Gian Thi Le Na, Pham Phuong Doanh.....	981
WTO APPELLATE BODY REFORM IN THE CONTEXT OF ESCALATING GEOPOLITICAL TENSIONS.....	988
Nguyen Nam Trung.....	988

IMPACTS OF STATE OWNERSHIP AND BUSINESS CHARACTERISTICS ON TAX AVOIDANCE: EVIDENCE IN VIETNAM.....	128
Huyen Ngoc Nguyen, Thanh Dan Bui .....	128
RUSSIA'S IMPACTS AND SCENES ON BEING BANNED FROM SWIFT .....	143
Lam Dang Xuan Hoa <sup>1</sup> , Phan Ngoc Anh <sup>2</sup> .....	143
THE ROLE OF ACCESS TO FINANCE AND THE ENTREPRENEURIAL INTENTION OF YOUNGERS IN THE SOUTHWESTERN PROVINCE, VIETNAM.....	151
Vu Truc Phuc*, Nguyen Dang Hat, Nguyen An Phu, Dao Le Kieu Oanh .....	151

## **BANKING HUMAN RESOURCES BEFORE THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE AI**

**Nguyen Huynh Chi**

*Nam A Bank*

*huynhchi1806@gmail.com*

### ***Abstract***

*The content of the article reflects the problems of human resources in the banking industry that change in quality and quantity before the impact of artificial intelligence AI. After analyzing the status of the effects of artificial intelligence on the banking industry in the world in general and Vietnam in particular, the article has made a comment on the current situation of human resources in the banking industry in Vietnam. Apart from that, the author has proposed solutions to improve the quality and apply for the number of labor positions required in the digital transformation process of the banking industry.*

**Keywords:** *AI, digital technology, digital transformation, artificial intelligence, banking.*

### **1. Introduction**

In recent years, “Artificial Intelligence” (AI) has been increasingly mentioned and applied in various fields such as education, manufacturing, healthcare, business, and finance, etc. In particular, the banking industry is one of the pioneers in applying AI to customer service, business promotion and effective risk management. AI helps support 24/7 customer service from opening payment accounts, online savings, setting up periodic money transfers, checking bank statements through apps and digital banking transaction points. AI has been contributing to the transformation of the banking industry in the digital era 4.0, helping the banking system automate processes, improving operational efficiency, and enhancing customer experience. Therefore, it is necessary and useful to learn about the impacts of artificial intelligence AI on human resources in the banking industry. Alternative solutions and appropriate changes in the operating system will help and contribute to the implementation of the sustainable development strategy of Vietnam's banking industry.

### **2. Theoretical basis and research methods**

#### **2.1 Theoretical basis**

##### **2.1.1 Artificial Intelligence**

In contrast to the intelligence exhibited by humans or other animals, artificial intelligence (AI) refers to the perception, synthesis, and inference of information made by computers. Speech recognition, computer vision, interlanguage translation, and various mappings of inputs are a few examples of activities where this is done.

Advanced web search engines, like Google Search, recommendation systems, speech recognition software, like Siri and Alexa, self-driving cars, generative or creative tools, like ChatGPT and AI art, automated decision-making, and winning at the highest levels of strategic game systems, like chess and go, are just a few examples of applications for AI. (Wikipedia, 2022)

##### **2.1.2 General issues**

Physicist Stephen Hawking and billionaire Elon Musk have warned about the potential threat of artificial intelligence even though AI is helping a lot in life. Stephen Hawking said, “Artificial intelligence could be the end of humanity when it develops to its fullest extent.”

When AI is fully developed, it could replace humans in intellectual jobs such as healthcare, catering, automated production lines and office work. Therefore, the unemployment rate in positions replaced by AI will increase.

According to Bill Joy, Co-Founder and Chief Scientific Officer of Sun Microsystems: "There is a huge problem for human society when AI becomes ubiquitous, in which we will become dependent. When AI becomes mainstream, we will allow ourselves to listen to the decisions of machines, because they simply always make more accurate decisions than humans."

According to Andrew Maynard, physicist, and director of the Center for Science Risk Research at the University of Michigan: “When AI combines with nanotechnology, it can be a breakthrough in science, and it is the greatest threat to humans. While the US Department of Defense is working on the Autonomous Tactical Robot (EATR) project, in which robots will use nanotechnology to absorb energy with organic substances that could be the human body. That's really the biggest threat, as nanorobots generate their own energy by eating organic matter from plants and animals, possibly even humans. It sounds like something out of a sci-fi movie, but it's entirely possible. Maybe we should start being careful now.” (Wikipedia, 2022)

## **2.2 Research methods**

To carry out this article, the author uses qualitative research methods mainly with tools such as descriptive statistics, analytical statistics, comparison, systematization, etc. To serve the research content, the research is the basic theories and general issues of artificial intelligence affecting human resources in the banking industry. The author uses data sources taken from books and articles published in journals in the field of banking at home and abroad, including master's theses and doctoral theses on artificial intelligence and its impact on the banking workforce. To serve to analyze the current situation of labor resources in the banking industry before the development of artificial intelligence, the author uses data sources and information taken from the internet, from banking industry reports.

## **3. The situation of human resources of the banking industry before the development of AI artificial intelligence**

### **3.1 In the world**

Most banks (80%)- Capital One, Citi, HSBC, JPMorgan Chase, Personetics, Quantexa, and U.S. Bank- are highly aware of the potential benefits presented by AI and machine learning, according to OpenText survey of financial services professionals. In fact, many banks are planning to deploy solutions enabled by AI: 75% of respondents at banks with over \$100 billion in assets currently implementing AI strategies, compared with 46% at banks with less than \$100 billion in assets, have seen by Insider Intelligence. Certain AI use cases have already gained prominence across banks' operations, with chatbots in the front office and anti-payments fraud in the middle office.

Banks can use AI to transform the customer experience by enabling frictionless, 24/7 customer service interactions — but AI in banking applications isn't just limited to retail banking services. The back and middle offices of investment banking and all other financial services could also benefit from AI.

Banks are leveraging algorithms on the front end to smooth customer identification and authentication, mimicking live employees through chatbots and voice assistants, deepening customer relationships, and providing personalized insights and recommendations.



AI is also being implemented by banks within middle-office functions to assess risks, detect and prevent payments fraud, improve processes for anti-money laundering (AML) and perform know-your-customer (KYC) regulatory checks.

The winning strategies employed by banks that are undergoing an AI-enabled transformation reveal how to best capture the opportunity. These strategies highlight the need for a holistic AI strategy that extends across banks' business lines, usable data, partnerships with external partners, and qualified employees. (Eleni Digalaki, 2022)

The banking sector in Hong Kong has been at the forefront of technological innovation in recent years, with digital transformation and automation reshaping the industry. One of the most significant technological trends impacting the banking sector is the rise of artificial intelligence (AI) and machine learning. These technologies have the potential to revolutionize the way that banks operate, but they also present challenges for HR professionals in the industry, particularly in the areas of risk management and compliance. However, these technologies also present challenges for HR professionals in the industry, including the need for upskilling and reskilling programs and the potential impact on job roles. HR professionals need to be proactive in managing these changes and developing training and development programs that enable their employees to keep up with these developments and remain competitive. Additionally, HR professionals can leverage AI and machine learning to improve their talent management strategies and identify potential risks and opportunities in their operations.

In conclusion, HR professionals in the banking sector in Hong Kong must embrace AI and machine learning as part of their talent management strategies to remain competitive and compliant with regulatory requirements. By investing in upskilling and reskilling programs and leveraging these technologies to improve their operations, HR professionals can position their organizations for success in the digital age. (Human Resource Management, Payroll Outsourcing, 2023)

### 3.2 In Viet Nam

In Vietnam, artificial intelligence has been widely applied in many fields from services, health care, education, transportation, entertainment, and especially the banking industry. For the banking and finance industry, AI technology is being integrated into the following 7 popular applications:

#### Fraud and fraud detection

Most banks today are applying AI technology to detect fraudulent transactions and give timely warnings to customers. AI uses the way to analyze and review behavior and patterns when making transactions through accounts when logging in on online applications in the past and present.

At Orient Commercial Joint Stock Bank (OCB), they cooperated with IBM to deploy a fraud management system based on IBM Safer Payments. This solution has also been deployed by IBM at many major banks around the world and OCB has become the leading bank in Vietnam pioneering the use of artificial intelligence AI in risk management. Specifically, the platform allows the bank to prevent fraudulent activity before it occurs, while also ensuring that the correct transactions of customers are not stopped due to errors. In addition, this technology platform also helps OCB to build and apply models to prevent emerging fraud threats, thereby proposing effective countermeasures. With the successful implementation of Safer Payments, banks are able to adapt to new threats faster and detect fraud with greater speed and accuracy without depending on vendors or data experts.

At VPBank, a transaction monitoring system based on artificial intelligence has been developed to detect frauds and risks through VPDirect; supporting technology research, improving the security of the banking system and applying it to platforms. (Minh Thanh, 2023)

#### Chatbot/Virtual assistants/AI Voice

Chatbot is understood as a software that automatically interacts, chats with users by text message, based on pre-programmed scenarios. Chatbots are available 24/7, and users converse with a chatbot through chat or voice interfaces, which can interpret and process words or phrases and respond with pre-programmed responses. Customers benefit from this product because it is an automated program that interacts with customers like a human and does not cost much.

Virtual assistants are designed to take input and perform tasks via voice (voice) commands. They can interpret the human voice and is supported by an artificial neural network that allows us to predict the user's intention regardless of the randomness of the query. Since virtual assistants are powered by AI, it is possible to learn user preferences and behavior over time, evolve and become smarter. When the virtual assistant is integrated with the personalization feature, it will understand the behavior and predict the needs of each customer, from which the virtual assistant can recommend and advise suitable financial and banking products.

Banks in Vietnam have soon applied Chatbot online support tool and are constantly improving and perfecting many new functions to serve customers more quickly and professionally.

TPBank is the first bank in Vietnam to apply AI when it launched the virtual assistant TAio on Facebook in July 2017. Timo of VPBank, Viet A Bank, HDBank, Vietcombank.... are banks that bring Chatbot applications to replace part of the work of customer care's staff.

In October 2018, Eximbank deployed the online support tool ChatBot developed from FPT.AI artificial intelligence platform - serving customers 24/7 with the name MAI on Eximbank's website as well as on Facebook fanpage. The application will improve more and more to better understand customer needs to improve the application's features and serve customers better. With this application, customers' frequently asked questions about Eximbank's products and services will be answered immediately by MAI and provide users with appropriate instructions and contact methods at any time. (July 24).

In March 2022, Vietinbank upgraded the Vietinbank Chatbot version, with this new version, VietinBank Chatbot completed and updated the following functions: Looking up information, card products and services; complaint tracing, card locking; Information and digital banking services: Register a payment account via eKYC; support, temporarily lock the account; Look up information directly in real time (Realtime): Exchange rate, interest rate, location of nearest ATMs and branches; Information on procedures: Consumer and business loans; send money; loan; LiveSupport channel directly supports online customers....In the coming time, VietinBank Chatbot will continue to be researched and deployed on Zalo, VietinBank iPay; application of modern technology such as recognition, voice authentication, query, support (VoiceBot, Biometric). (Vietinbank electronic newspaper, 2022)

In September 2022, Asia Commercial Bank (ACB) launched a new generation AI Bot system. ACB AI Bot is developed based on VinBase Chatbot product (belonging to VinBase ecosystem) of VinBigdata. ACB AI Bot is a new generation intelligent virtual assistant with three advantages: intelligent interaction, self-learning, and continuous development ability along with the ability to recognize emotions to help the bank understand and serve customers well. than. This virtual assistant can give accurate answers to questions and requests from customers, owning more than 1,000 different customer care scenarios with near-instant response times (under 0.5 seconds). In the future, ACB AI Bot will have more advanced features such as broadcasting digital marketing campaign, information retrieval, agent management. In the first week of launch, ACB AI Bot recorded more than 1500 new users and an average of more than 3000 visits. It could chat every day with positive feedback from customers.

VIB International Bank is also one of the banks interested in deploying AI applications, MyVIB 2.0 stands out with AI Voice technology that allows users to convert voice into text and vice versa. In return, the user only needs to read the order according to the form to be able to make a transfer, top up, unlock/lock the card, in less than a minute. With the superior features of MyVIB 2.0, customers can easily perform financial transactions even without their hands free. (VIB e-newspaper, 2023)

#### Decision support for loans and credits

AI can be used to look at a customer's credit history and behavior to assess creditworthiness and appropriate credit limits. In addition, the system applying AI technology can also warn possible cases of bad debt to help banks make appropriate lending decisions.

In May 2019, MSB was the first bank to apply AI in credit card opening, MSB and its partner Five9 applied AI to search and evaluate potential customers for credit card products. AI will assess the financial capacity and repayment ability of customers to reduce traditional procedures. The application has brought many benefits to customers opening a bank credit card for the first time such as: customers do not need to prove their income but still get pre-approved for the card's limit; Super time saving: From registration to receiving card in just 24 working hours; Extremely simple and convenient when registering to open a card when interacting completely online. (Khong Thu, 2019)

In 2019, TP Bank has successfully applied AI to management, TP Bank has put into operation many modern systems such as CRM - customer relationship management system or LOS - loan management system, helping the bank to strongly increase its ability to find new customers, digitizing documents, process documents using AI technology to approve loans quickly, making TP Bank one of the fastest banks in the world. It approved customer's loan application fastest in the market. (TP Bank electronic newspaper, 2019)

#### Follow the current trends in the market

By applying big data (Big data) and AI, banks will be able to predict market trends, cash flows and stocks. Moreover, they can also access market sentiments and propose proposals. They could offer reasonable investment options and suggest the right time to invest in stocks or warn of potential risks.

Realizing the role of AI and Big Data, MBBank pioneered the implementation of Customer Insight, Smart Channel, Customer onboarding, etc. projects, helping to understand customer needs and behavior, gain a deeper understanding of the individual. optimize the experience through the application of advanced automation technology. In 2021, MBBank has developed a series of outstanding utilities integrated on the digital banking platform through the MBBank App and Biz MBBank to serve customers. (Truong Tinh, 2021)

#### Data collection and analysis

Banks and financial institutions can have up to millions of transactions per day, the amount of information generated from that is extremely large and it would be very difficult if only humans handled such amount of information. AI can help solve this problem by more efficiently collecting and analyzing data, improving the user experience.

#### Increase customer experience (CX hay Customer Experience)

The integration of AI in banking and financial services will help improve customer experience and comfort. For example, eKYC (Electronic Know Your Customer) technology is used to verify a customer's identity when using a bank's services such as opening an account, depositing money, withdrawing money, etc. The customer using the service is the owner. All customer identity verification regulations are completely automated and take place 100% online, based on customer identification technology using

artificial intelligence (AI), biometric information (biometrics). In addition, eKYC helps banks to reduce manpower and personnel costs. eKYC data can be transmitted in real time automatically without any manual intervention of human, eKYC helps banks to build a unified data warehouse of customer information. Most Vietnamese banks now use eKYC such as: MSB, Nam A Bank, HD Bank, BIDV, etc.

#### Process Automation

RPA (Robotics Process Automation) solutions - in the financial industry is the use of robotic applications to supplement (or replace) human activities that can help increase operational efficiency and increase accuracy as well as accuracy. such as reducing costs by automating repetitive tasks, thereby allowing users to focus on other more complex processes.

At MB Bank, the RPA project is one of five initiatives leading the bank's digital transformation strategy. In December 2021, MB Bank applied RPA to 40 processes with 23 robots, of which two were self-developed by MB Bank's Information Technology department. MB Bank intends to research Robotic technology that combines AI and Machine Learning technologies to develop thinking robots to participate in complex, thinking-related processes related to decision-making. (Truong Thinh, 2021)

At HDBank, most of the transactions with customers from opening accounts and passbooks, electronic customer identification, data analysis, to internal processes such as timekeeping, complaint handling, order approval... are all conducted by virtual workers - automation robots based on akaBot platform. The robots that helped HDBank have improved processing speed 30 times, saving transaction time from 3 minutes to just a few seconds, reducing manual operations to 20% and increasing accuracy to 100%.

At BIDV, automation has been applied since 2019 on a small scale in three customer service, retail and commercial divisions BIDV and akaBot deployed robots for 11 business flows at the Digital Banking department, Center Card and Customer Care Center. In BIDV's digitalization strategy for the period 2021 - 2025, with a vision to 2030, BIDV affirmed that applying robots to automate internal processes is a mandatory trend to improve operational efficiency and save costs.

TPBank, a pioneer in process automation application technology, deploys 5 new robots per week and uses up to 300 robots in operations, saving hundreds of employees and providing unlimited transaction experience. term for customers. Thanks to extensive technology application, TPBank has saved 60% of loan disbursement time and 60% of transaction time at the counter. (Electronic Youth Newspaper, 2021)

According to the banking industry report in 2022, statistics show that 94% of Vietnamese commercial banks have invested in digital transformation, 40% of banks have put digital transformation into a strategic vision in 5-10 years next year. According to the "Digital transformation plan of the banking industry to 2025, with a vision to 2030" of the State Bank of Vietnam, the goal towards 2025 is to ensure that 60% of credit institutions have the proportion of revenue from digital channels reaching over 30 %.

According to statistics by 2022, the State Bank has deployed 62/370 online public services at levels 3 and 4 and is upgrading 25 administrative procedures to level 3 and 4 public services. In the digital transformation index of ministries, ministerial-level agencies, Governmental agencies, and provinces and centrally run cities of the Ministry of Information and Communications, the State Bank was ranked 1st in terms of security ranking index. network information security, the second on the digital institutional index and the fourth on the digital transformation activity index. In addition, most credit institutions are planning to develop and implement digital transformation strategies. Many basic operations have been digitized 100%; Many banks have recorded that more than 90% of customer transactions are done through digital channels with an optimal cost-to-income ratio, only 30-40%.

Banks have applied artificial intelligence, machine learning, and big data technologies in customer assessment, classification, and disbursement decisions. Some outstanding products are SmartBanking, Omni iBank system, feature development on automatic teller machines.

Payment activities in the economy are carried out safely, efficiently, and smoothly. In the first 10 months of 2022 compared to the same period in 2021, transactions through the interbank electronic payment system increased by over 4.6% in quantity and over 33.06% in value; electronic clearing and financial switching system increased by 99.79% in quantity and 106.09% in value, non-cash payment transactions increased by 87% in quantity and 34% in value. ( MBS Research, 2022)

### **3.3 General assessment of human resources in the banking industry in Vietnam before the development of artificial intelligence AI**

When banks apply AI to automate processes and services through RPA, Chatbot/Virtual assistants/AI Voice, eKYC, etc., there will certainly be no need for many operators, so staff reduction will occur. go out; The bank will save the cost of hiring human resources, but the risk of job loss is very high.

Pham Hong Hai - former CEO of HSBC Vietnam in the next 5-10 years more than 50% of jobs in the banking industry will be replaced by machines.

In recent years, when the speed of digitization has accelerated, banks have also drastically cut staff. In 2019, there were 6 banks that cut more than 4,000 employees, of which VPBank was the bank that cut staff the most with more than 2,030 employees at the end of 2019. When applying digitization to the process through applications More than 30% of small loans and cards are made online by VP Bank, money transfer, borrowing, and shopping needs are all done via Internet banking or VP bank online, the machines make automatic payment. 24/7 operation is also flexible for customers and replaces the work of bank tellers.

However, the application of AI will also create new jobs suitable for the digital transformation process. Although the demand for banking personnel will no longer increase as strongly as in the past, the demand in some segments for digital transformation will be very large and focus on the retail and digital banking segments. According to a survey by PwC, nearly 80% of bank leaders are worried about attracting human resources who are knowledgeable about digital transformation and innovation, and the workforce for digital banking will be scarce.

The problem for banks today when accelerating digital transformation will create changes in the banking workforce. The demand for general human resources in the financial industry will decrease and require a high-quality, adaptable, and innovative workforce to provide personalized products and services that enhance customer experience. According to Navigos Search, banks need positions related to digital transformation such as: Business Development for digital banking services, Customer experience analysis and information technology such as Project Manager, Analysis Data Analysts, Cybersecurity Specialists, Credit Analysts, Programmers...

However, the number of candidates who can meet the above needs is very rare because the banking industry is a highly specialized industry, so in addition to the factors of understanding digital transformation, it is required to have experience and knowledge about digital transformation, financial services, understanding the internal state of the bank. Therefore, some banks instead of recruiting from outside candidates, prioritizing hiring people with experience working abroad, banks have also organized training on digital transformation knowledge for their staff. (Cafef e-newspaper, 2020)

## **4. Conclusion and proposed solution**

### **4.1 Conclusion**

As AI technology is advancing deeply and widely in the banking industry, the demand for quantity and quality of labor will have to change to be more suitable. Job positions are at risk of fading and disappearing such as: Telesale, teller.... According to Business Insider's research, there will be 40 banking jobs affected by major changes in the digital transformation process due to the addition or replacement of jobs by RPA, Chatbot/Virtual assistants/AI Voice, eKYC... However, the demand for high-quality human resources will increase to be able to meet digital transformation. In terms of labor quality, currently some human resource banks have not met the professional demand in digital transformation, and training institutions have not kept up with the trend of technology development.

In fact, in recent years, credit institutions have implemented a few solutions to recruit personnel through the recruitment plan of overseas Vietnamese candidates, even foreign experts. The force of foreign experts and overseas Vietnamese helps the bank solve pressing problems in technology, besides helping to transfer knowledge and technology and improve the quality of domestic personnel through training for the team. However, the salary paid to this group of personnel is often very high, causing a disturbance in the salary level between Vietnamese personnel who have been with the organization for long time and newly recruited personnel. Besides, foreign candidates, overseas Vietnamese will have differences in thinking, how to coordinate with the existing internal team, long-term attachment, and development of this team as the core force will be difficult. When the gap between supply and demand for high-quality human resources is widened, the labor market becomes more and more competitive in attracting talents.

In the market, there are also banks that choose to hire external consultants or recruit technology staff who do not have banking experience in training; However, due to the dearth of human resources with experience in the banking industry's digital transformation, some other banks also choose to hire consultants or overseas professionals in addition to hiring staff from similar fields, such as e-commerce or financial technology. (Hong Dung, 2022)

#### **4.2 Proposed solution**

External short term, to meet the urgent need for high-quality human resources knowledgeable and experienced in digital technology, recruiting overseas Vietnamese and foreign experts, hiring external consultants outside or recruiting technology institutes, between the leadership and recruitment / cooperation personnel must clearly define the vision and goals, need to understand correctly and do it right. Departments and departments must work together to move towards digital transformation, changing both corporate cultures, not just technology. Organizations and individuals must determine the mentality that there will be many new tasks and challenges that need to be overcome because the digital transformation environment is a new segment of the trend.

Because digital transformation is a new field that requires a lot of new knowledge, both employers and employees must invest in training, acquiring new technologies, knowledge and working models.

Organizations need to build a quick, clear, convenient working mechanism, streamlined process, and a flexible and appropriate compensation mechanism to retain high-quality employees. They need to clearly define their career goals and long-term opportunities when sticking with the organization because the opportunity to move to high positions is often faster when the candidate has experience and ability but requires employees must understand the organization and work a certain time.

In the long-term 5-10 years, to meet the needs of human resources for digital transformation, it is necessary to prepare in education and training. Universities must continuously update, develop, and innovate training programs to increase applicability, reduce academic modules, and supplement modules such as digital banking, financial technology, and commerce. e-commerce, modern banking services. The

training program should equip knowledge through updating disciplines, lectures, content, core knowledge, providing basic and advanced foundations; on skills that need to be equipped with learning methods and soft skills training; on attitudes that need to be reinforced and fostered the attitudes necessary to adapt to digital transformation. Schools need to measure and evaluate how well learners achieve their output standards to meet the needs of digital transformation.

In addition, educational institutions need to coordinate with banks to train human resources in line with market needs, increase practical experience and practice for students, promote international cooperation, training high-quality human resources, capable of meeting job requirements in an international environment.

In the context of digital transformation in the next 5 to 10 years, the job position as well as the quantity and quality requirements of the banking industry will have many changes. Workers need to actively improve their qualifications, master technology and practice diversifying skills, equipping, and fostering qualities that machines and technology cannot replace; regularly update new trends, flexibly adapt to changes. (Prof., Dr. Le Thanh Tam, MSc. Hoang Thi Huyen, 2022)

### References

Assoc., Dr. Le Thanh Tam, MSc. Hoang Thi Huyen, 2022. Preparing human resources for the digital transformation of the banking sector: Recommendations for universities in the economic sector in Vietnam. Electronic banking magazine. Visit at <https://tapchinganhang.gov.vn/chuan-bi-nhan-luc-cho-chuyen-doi-so-nganh-ngan-hang-khuyen-nghi-doi-voi-cac-truong-dai-hoc -khai-king.htm>

E-newspaper cafef, 2020. "In the next 5-10 years, more than 50% of jobs in banks will be done by machines". Electronic newspaper cafef. Visit at <https://cafef.vn/trong-5-10-nam-toi-hon-50-so-luong-cong-viec-trong-ngan-hang-se-duoc-lam-boi-may-moc -20200910154428787.chn>

Electronic Youth Newspaper, 2021. Banking and retail growth thanks to automation robots. Electronic youth newspaper. Visit at <https://thanhnien.vn/ngan-hang-ban-le-but-pha-tang-truong-nho-robot-tu-dong-hoa-1851411134.htm>

Eleni Dugalaki, 2022. The impact of artificial intelligence in the banking sector & how AI is being used in 2022. Businessinsider e-newspaper. Visit at <https://www.businessinsider.com/ai-in-banking-report>

Hong Dung, 2022. The bank is "thirsty" for digital transformation personnel. Electronic magazine Stock news. Access at <https://www.tinnhanhchungkhoan.vn/ngan-hang-khat-nhan-su-chuyen-doi-so-post309453.html>

Human Resource Management, Payroll Outsourcing, 2023. AI and Machine Learning: Implications for HR in the Banking Sector. Electronic newspaper i-admin.com. Accessed at <https://www.i-admin.com/blog/ai-and-machine-learning-implications-for-hr-in-the-banking-sector/>

Khong Thu, 2019. MSB pioneered the application of artificial intelligence in credit card opening activities. Financial and monetary market electronic newspaper. Visit at <https://thitruongtaichinhthiente.vn/msb-tien-phong-ung-dung-tri-tue-nhan-tao-trong-hoat-dong-mo-the-tin-dung-23405.html>

MBS Research, 2022. Overcoming the Challenge-Rising in Doubt. Banking industry newspaper in 2022

Minh Thanh, 2023. OCB invests in fraud management system in multi-channel digital banking. Youth electronic newspaper. Visit at <https://tuoitre.vn/ocb-dau-tu-he-thong-quan-ly-gian-lan-trong-ngan-hang-so-da-kenh-20230516165500413.htm>

Truong Thinh, 2021. MBBank released the report "Application of Big Data and AI in banking". Electronic newspaper. Visit at <https://dantri.com.vn/king-doanh/mbbank-phat-hanh-bao-cao-ung-dung-big-data-va-ai-trong-ngan-hang-20211210090741105.htm>

TP Bank electronic newspaper, 2019. TP Bank was honored as an excellent bank in digital transformation. Electronic newspaper TP Bank. Access at <https://tpb.vn/tin-tuc/tin-tpbank/tpbank-duoc-vinh-danh-la-ngan-hang-xuat-sac-trong-chuyen-doi-so>

VIB electronic newspaper, 2023. Application of artificial intelligence (AI) in VIB bank. VIB electronic newspaper. Visit at <https://www.vib.com.vn/vn/cam-nang/ngan-hang-so/tien-ich-va-trai-nghiem/tri-tue-nhan-cao-ai>

Vietinbank electronic newspaper, 2022. VietinBank Chatbot launches a new version, improving customer experience. Vietinbank electronic newspaper. Visit at <https://www.vietinbank.vn/vn/tin-tuc/VietinBank-Chatbot-ra-mat-phien-ban-moi-nang-cao-trai-nghiem-khach-hang-20220314113218.html>

Wikipedia, 2022. AI applications in banking - the story of the experience. Electronic newspaper en.wikipedia.org. Accessed at <https://en.wikipedia.org/wiki/>



NOT FOR SALE



978-604 79-3782-0

ISBN: 978-604-79-3782-0

**HO CHI MINH CITY UNIVERSITY OF ECONOMICS AND FINANCE**

141 - 145 Dien Bien Phu, Ward 15, Binh Thanh District, HCM City

Website: [uef.edu.vn](http://uef.edu.vn) - Hotline: (028) 5422 6666 \* (028) 5422 5555