



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 ¹ , Pham Quoc Tham ²	57
HOW CHINA_USA POLITICAL TENSIONS AFFECT STOCK MARKET RETURN OF CHINA AND THE USA? A QUANTILE VAR CONNECTEDNESS APPROACH	70
Hao Wen Chang ¹ , Tsangyao Chang ² and Mei-Chih Wang ³	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 ¹ , Nguyen Thanh Dien ²	182
TRANSPARENCY OF ACCOUNTING INFORMATION OF CONSTRUCTION ENTERPRISES IN HO CHI MINH CITY – CASE STUDY OF APPLICATION OF ACCRUAL ACCOUNTING	193
Truong Thanh Loc ^{1*} , Pham Thi Yen Nhi ²	193
FACTORS AFFECTING THE QUALITY OF FINANCIAL STATEMENTS OF MANUFACTURING ENTERPRISES IN HO CHI MINH CITY	207
Truong Thanh Loc [*] , 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 [*]	221
CONSUMER PERCEPTION ABOUT THE SUSTAINABILITY COMMITMENT OF LUXURY BRANDS IN VIETNAM AND CHINA MARKETS.....	233
Tran Minh Tu ¹	233
INFLUENCE OF WOM AND EWOM IN MAKING DECISION BUYING GOODS	247
Doan Anh Tu ¹ , Kim Phi Rum ² , Nguyen Pham Hai Ha ³	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 ¹ , Dao Y Nhi ² , Nguyen Thanh Luan ³ , Dang Quan Tri ⁴	309
THE PEDAGOGICAL IMPACT OF GRAMMARLY ON EFL WRITING COMPETENCY: AN EMPIRICAL INVESTIGATION IN HIGHER EDUCATION CONTEXT.	323
Nguyen Thi Hong Lien ¹ , Nguyen Truong Gia Minh ² , Nguyen Ngoc Vu ^{3*}	323
FACTORS AFFECTING PURCHASING DECISION OF THE YOUTH ON TIKTOK	336
Ngoc Pham ¹ , 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 ¹ , Ha Le Thu Hoai ¹ , Nguyen Huu My Truc ^{2&3} , Pham Tan Nhat ^{2&3}	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 ^{1*} , Nguyen Huynh Bao An ² , Van Phuong Trang ²	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 ^{1,2} , Le Thi Giang ² , Truong Quang Dung ¹	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 ^{1*} , Canh Quang Tran ² , Anh Bach Hoang Ngoc ¹	453
FACTORS INFLUENCING PARENTS' SELECTION OF PRIVATE PRESCHOOLS IN THU DUC CITY	466
Thi-Trang Tran ¹ , Thi-My-Dung Pham ² , Thi-Bich-Diep Le ^{1*}	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 ¹ , Nguyen Quyet Thang ²	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 ¹ , Hoang Thi Chinh ²	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 ¹ , Đặng Thị Mai Ly ^{2*} , Nguyễn Anh Khoa ² , Nguyễn Văn Tường ²	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 ¹ , Khuong Thanh Nguyen ²	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 Hien596

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 ^{1*} , Nguyen Thi Thanh Truc ²	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 ¹ , Jenny Hill ² , Andy V.-M. Kok ² , Matt Barr ² , Ruffin Relja ^{2*} , Philippa Ward ² , Duong Tran Quang Hoang ³ , Quynh Phuong Tran ³	662
LEVERAGING DIGITAL TRANSFORMATION FOR SUSTAINABLE CORPORATE EVOLUTION IN VIETNAM	677
Nguyen,Tan Dat ¹ , Le,Dinh Thang ²	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 ^{1*} , Nguyen Thi Kim Lien ² , Tien Hung Nguyen ³ , Vinh Long Nguyen ⁴	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 ¹ , Tran Quoc Thao ²	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 ¹ , Tran Quoc Thao ²	763
EXPLORING EFL LEARNER IDENTITIES IN PROJECT-BASED LANGUAGE LEARNING AT A HIGH SCHOOL IN AN GIANG PROVINCE	774
Nguyen Hong Thien ¹ , Tran Quoc Thao ²	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 ¹ , Tran Quoc Thao ²	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 ^{1,*} , Duong My Tham ²	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 ^{1,2} , Nguyen Thi Xuan Mai ²	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 ¹ , Nguyen Thi Ngoc Loan ²	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 ¹	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 ¹ , Tran Vang Phu ²	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 ¹ , Hoang Minh Châu ²	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 ¹ , Phan Ngoc Anh ²	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

THE CRITICAL FACTORS OF COLLEGE STUDENTS' INTENTION TO USE METAVERSE TECHNOLOGY FOR SUBJECTS RELATED TO IMPORT-EXPORT LEARNING

*Van Thuy Nguyen Ho, Chau The Huu, Luan Thanh Nguyen**

*Ho Chi Minh City University of Foreign Languages-Information Technology, Vietnam
luannt@huflit.edu.vn*

Abstract

New Virtual reality (VR) products have exploded due to corporate and academic interest in VR technology. Young people are also interested in logistics careers. Modern import/export courses are realistic but mostly hypothetical. Metaverses are used in education, especially logistics training, but little is known about why. To close this gap in logistics training, we linked import-export training courses with metaverse technology, addressed ways to teach it in virtual reality, and studied what motivates college students to participate in metaverses. Metaverse technology can help international students understand port forwarding by connecting them. These connections let international students learn about each other's import and export businesses. UTAUT inspired a new research paradigm and quantitative studies to test its hypotheses. Metaverse technology users for import-export learning were characterized by 413 representative college students. Conducive environments, hedonic motivation, and trust improve students' usage behavior, according to the survey. Access to resources and tools, pleasurable interactions with technology, and trust in the information provided and privacy and security over personal data are all facilitating conditions. These findings shed light on students' intentions to use metaverse for import-export learning, which can be used to improve programs and systems.

Keywords: *Import/export courses, Metaverse, UTAUT, Virtual space*

1. Introduction

The rapid advancement of digital technology and the global impact of the COVID-19 pandemic have transformed society into a faceless and interconnected world. Cultural transmission has been facilitated through digital means, enabling communication and learning across time and space (Joo et al., 2021). As a result of the pandemic, online learning has gained significant popularity, as it offers a viable alternative for both students and teachers (Safsouf et al., 2020). Notably, the Politecnico di Torino in Italy suspended in-person lessons during the pandemic and successfully transitioned to offering a staggering number of virtual courses, accommodating thousands of participants (Kumar & Al-Besher, 2022). In the realm of education, Virtual Reality (VR) and Augmented Reality (AR) technologies have shown promise in enhancing students' learning experiences. Specifically, in the context of natural science education, these immersive technologies have been found to improve learning efficiency, increase attentiveness, and cater to students' interests (Alnagrat et al., 2022). The practicality, flexibility in scheduling, accessibility to up-to-date resources, and ability to facilitate students' maximum potential are among the reasons for the growing popularity of e-learning.

Metaverse technology has attracted considerable attention from experts and educators, as it presents new possibilities for online learning (Dwivedi et al., 2022). Unlike traditional software that relies on learning management systems and pre-designed classes, metaverse platforms enable students to interact within virtual worlds and engage in collaborative learning experiences. These platforms incorporate gamification and other strategies to make learning enjoyable and personalized, catering to the diverse needs of students. The surge in interest from both the business and academic sectors has resulted in the introduction of numerous new VR devices to the market (Ning et al., 2021). Logistics has emerged as an increasingly appealing field for the younger generation, and current import-export courses tend to focus on theoretical content rather than practical application. To address this gap, our study utilizes metaverse technology to teach import-export in a virtual reality setting, aiming to provide a more realistic and immersive learning experience. By leveraging metaverse technology, students can simulate various import-related tasks such as completing paperwork and navigating customs clearance processes. Additionally, the technology allows for the creation of three-dimensional representations of vehicles, cargo ships, and other import-export equipment, further enhancing the authenticity of the training.

The UTAUT (Unified Theory of Acceptance and Use of Technology) paradigm is frequently used to study how people decide to use technology. Numerous studies have examined the adoption of various technologies, including virtual and augmented reality (Alvarez-Risco et al., 2022; Jafar et al., 2023). The UTAUT model examines performance expectancy, effort expectancy, social influence, and facilitating conditions to determine technological uptake (Pal et al., 2021; Venkatesh et al., 2003). Educators and designers can improve technology acceptance and learning by recognizing the key elements that influence college students' metaverse technology use (Akour et al., 2022). This study addresses several research gaps in the field of metaverse technology and import-export education. Firstly, while metaverse technology has been extensively studied, its application in the context of import-export learning remains understudied. By investigating the use of metaverse technology for import-export education, this research fills this gap and provides valuable insights into its potential and impact. Additionally, the study expands upon the Unified Theory of Acceptance and Use of Technology (UTAUT) framework by incorporating hedonic motivation and trust factors specific to metaverse technology use in import-export learning as shown in Fig. 1. Furthermore, the role of facilitating conditions in metaverse technology adoption and the impact of social influence on college students' desire to use metaverse technology for import-export education are explored. The study also justifies the use of the UTAUT model, given its theoretical foundation and widespread adoption, and investigates the influence of trust on import-export courses in metaverse (IEM) learning behavior. Finally, the potential of metaverse technology in enhancing interactive virtual reality education is examined, aiming to contribute to the understanding of its effectiveness in the import-export domain and other areas of technical education.

2. Hypotheses and Conceptual framework

2.1. Performance expectancy

Performance expectation (PFE) refers to individuals' belief in the system's utility and their perception of how well they can use technology to complete tasks effectively (Venkatesh et al., 2003). Previous research has consistently highlighted the significant impact of PFE on individuals' behavioral intention to adopt and utilize information technology systems (Chavoshi & Hamidi, 2019). Studies have shown that high performance expectations positively influence the adoption of various technologies, such as mobile learning (Chavoshi & Hamidi, 2019) and internet banking (Tarhini et al., 2016), as they enhance individuals' expectations of achieving academic success or improving their banking experiences. Therefore, in the context of metaverse technology for import-export courses, if students perceive that the metaverse

can enhance their knowledge and skills in import-export, they are more likely to have a positive perception of the technology and engage with it actively. Thus, we hypothesize that:

H1. PEE has a positive influence on students' behavior intention to attend IEM

2.2. Effort Expectancy

Effort expectancy (EFE) refers to the perception of easiness associated with using an online information system or advanced technologies (Venkatesh et al., 2003), such as mobile learning, mobile commerce, and metaverse. It captures users' perceived ease of use when interacting with these technologies. Previous research has consistently demonstrated the significant influence of EFE on individuals' adoption of various technology-based services (Dwivedi et al., 2019). In the context of mobile learning, EFE has been identified as the most influential factor affecting students' adoption of mobile learning services (Chavoshi & Hamidi, 2019). When it comes to metaverse-embedded courses, a positive EFE can contribute to students' clarity and understanding, preventing confusion and facilitating the learning process. For the above reasons, we hypothesize:

H2. EFE has a positive influence on students' behavior intention to attend IEM

2.3. Social influence

Social influence (SI), as described by Venkatesh et al. (2003), refers to the extent to which an individual believes that others around them genuinely think they should adopt a new technological innovation. In other words, it encompasses the social pressure exerted on an individual due to the opinions and beliefs of others or organizations. These factors are based on the assumption that an individual's behavioral intention is heavily influenced by their perceived notion of how others perceive the innovation. In the context of technology adoption in education, social influence plays a critical role in encouraging learners to adopt new technologies (Andrews et al., 2021). Previous research has consistently highlighted the significance of SI in shaping users' behavioral intentions toward technology adoption (Dečman, 2015), including in domains such as mobile learning, mobile government service adoption, and e-government service usage (Venkatesh et al., 2011; Wong et al., 2015). Thus, we hypothesized that:

H3. SCI has a positive influence on students' behavior intention to attend IEM

2.4. Facilitating conditions

A facilitating condition (FCC) is a person's conviction that the use of a new system or technology may be facilitated by organizational and technical resource (Venkatesh et al., 2003). This is transferred to the use of metaverse technology for subjects related to import-export learning environments, such as access to wireless networks, provision of mobile devices, and technical assistance when needed. Theorized and proven to have a favorable influence on use behavior were FCC (Magsamen-Conrad et al., 2015). As a result, the following possibilities were offered:

H4. FCC has a positive influence on students' behavior intention to attend IEM.

2.5. Hedonic motivation

Hedonic motivation (HDM) refers to the pleasurable sensations and enjoyment that individuals experience when using a new technology (Venkatesh et al., 2003). Marketers are encouraged to design advertisements in a more innovative and creative manner to enhance their effectiveness and interaction with consumers, thereby fostering their hedonic motivation (Nguyen et al., 2022). In the realm of technology, apps and learning program incorporating augmented reality are more likely to provide users with a positive user experience compared to chatbots (Akour et al., 2022). Ultimately, individuals' purposeful behavior in

effectively utilizing new technology is influenced by their hedonic motivation (Nguyen et al., 2022). Thus, in the context of educational uses of metaverse technology, we hypothesized that:

H5. HDM has a positive influence on students' behavior intention to attend IEM.

2.6. Trust

Trust (TRT) has been identified in previous research as a significant factor that can influence individuals' behavior when using technology (Liébana-Cabanillas et al., 2020). The concept of trust encompasses both individual and societal aspects. The modified commitment-trust theory suggests that trust has both an indirect impact on behavior through its influence on commitment, as well as a direct impact on behavior (Shin & Hwang, 2020). Trust plays a crucial role in promoting behavioral intention. In the context of using metaverse technology for import-export learning, if college students believe that the metaverse platform will facilitate their learning of import-export material, they are more likely to use it and actively engage in learning activities. This underscores the importance of perceived trust in fostering behavioral intention, leading to the formulation of next hypothesis:

H6. Trust has a positive influence on students' behavior intention to attend IEM

2.7. Behavioural intention

Behavioral Intention (BHI) is a key factor in understanding the actual use behavior of technological system and services as highlighted by previous studies (Magsamen-Conrad et al., 2015). The intention to adopt technology is often driven by the perceived utility and usability of the system (Wong et al., 2015). Furthermore, the positive mood induced by the e-learning system can significantly influence students' behavior (Shen et al., 2022), while social factors play a role in shaping students' intentions to engage in mobile learning (Yuan et al., 2021). In light of these findings, this study posits next hypothesis, suggesting that college students who utilize the metaverse for import-export learning will benefit from enhanced behavioral intention.

H7: Behavioral intention of students in using IEM has a positive influence on their use behavior (USB)

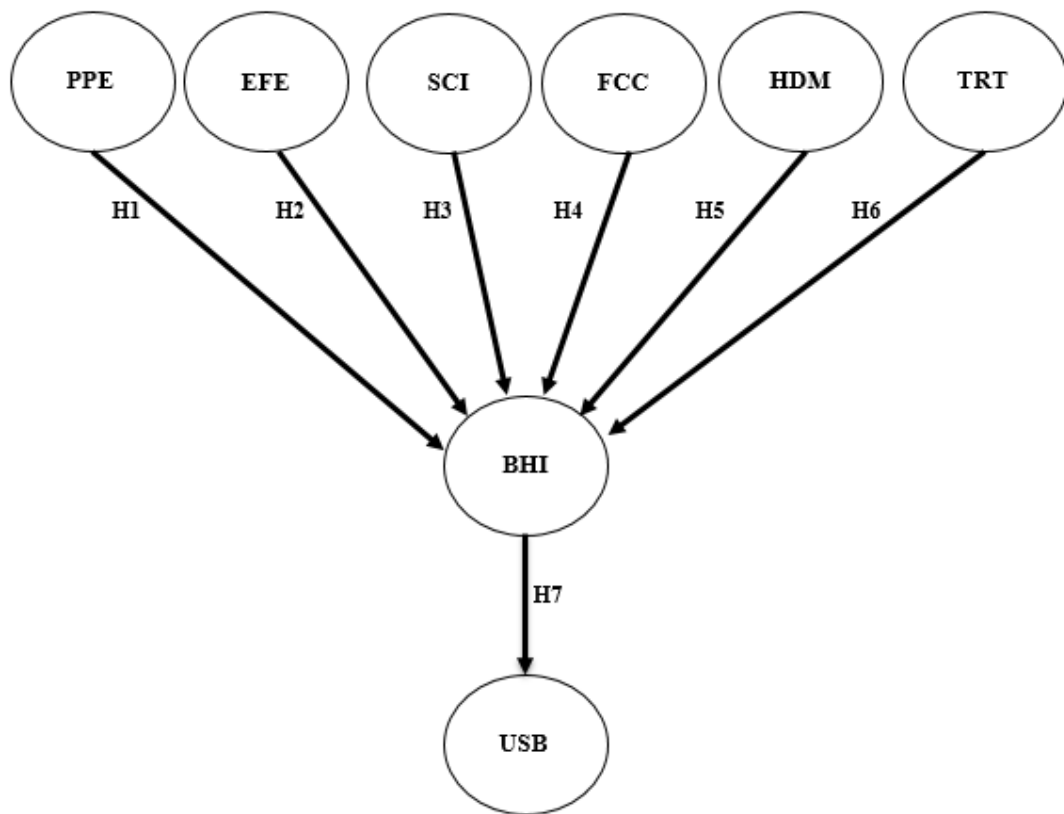


Fig. 1. Conceptual framework

3. Research methodology

This study focuses on examining the motivations of college students in Ho Chi Minh City to utilize metaverse technology for studying import/export issues. Structural equation modeling was employed to analyze the relationships among different variables. To enhance the questionnaire, a video was included that explains the concept of the metaverse, showcases existing educational materials in the metaverse, and presents potential applications of metaverse technology for import/export studies. Juniors and seniors were specifically targeted as participants due to their maturity and broader knowledge, which enables them to better assess the usefulness of emerging technologies. Given the increasing prevalence of online distance learning in the aftermath of the COVID-19 pandemic, college students have been exposed to various innovative tools, making them a suitable population for this research. Purposeful sampling was utilized to ensure the selection of participants who could provide valuable insights. The questionnaire was administered and collected at each stage, with a demographic survey form serving as the data collection instrument, using a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7) to rate the components of the measure. To ensure an adequate sample size for the analysis using partial least squares-structural equation modeling (PLS-SEM), the "10 times rule" suggested by Christopher Westland (2010) was applied. According to this rule, a minimum of 131 responses was determined as the required sample size. Additionally, G*Power version 4 was utilized to calculate the smallest sample size considering parameters such as a statistical power of 0.8, margin of error of 0.05, effect size of 0.15, and six predictors. The results indicated that a sample size of 98 would be sufficient. It is important to note that the term "minimum" in this context refers to the smallest practical sample size with a specified level of significance and power for SEMs (Duarte & Raposo, 2010). However, it is generally recommended to have larger

sample sizes as they more accurately represent the characteristics of the target populations. Therefore, when conducting PLS-SEM analysis, researchers should aim for a sample size larger than the minimum requirement. The measurement items for PEE, EFE, SCI, FCC, BHI adapted from Venkatesh et al. (2012), HDM adapted from Nguyen et al. (2022), and TRT, USB adapted from Chong (2013). The majority of respondents in the study were female, accounting for 60% of the total respondents, while males accounted for the remaining 40%. The survey primarily targeted students, with 85% of respondents and 15% is instructors and lecturers. In terms of ability of using technology, the majority of respondents (78%) is tech-savvy, while the remaining 22% has reluctant to experience new technology. Regarding the willingness of using metaverse in studying, 80% of respondents wants to study in metaverse. Only 20% of respondents ignores the use.

4. Data analysis and discussion

4.1 Assessing measurement model

The measuring model for a reflective model requires reliability and validity. Cronbach's alpha and composite reliability (CR) measure reliability, while convergent validity and discriminant validity measure validity (J. F. Hair et al., 2014). "The degree to which two or more efforts to measure the construct are consistent with one another" is convergent validity, which may be proven "by assessing both the average variance extracted (AVE) and indicator loadings" (J. Hair et al., 2017). "The extent to which the construct is empirically distinct from other constructs, or, in other words, the construct measures what it is intended to measure" (Hair et al., 2014) is the discriminant validity, which is established when "the square root of the AVE for each construct is greater than the correlations between that construct and all other constructs" (Ab Hamid et al., 2017) in table 2. General rules for Cronbach's alpha, CR, AVE, and indicator loading:

- Cronbach's alpha must be larger than 0.70. (Nunnally & Bernstein, 1995)
- The CR should be at least 0.60. (Bagozzi & Yi, 1988)
- AVE should be more than 0.50. (Kline, 1988)
- Indicator loading is 0.70 or higher (Claes Fornell & David F. Larcker, 1981)

Table 1 shows that CR and Cronbach's alpha values exceed the rules of thumb, validating all constructs. Excellent indicator loadings and AVE ensure convergent validity. Table 2 reveals this study has discriminant validity.

Table 1: Indicator loadings, AVE, CR of constructs

Construct	Items	Loading	AVE	CR	Cronbach's a
BHI	BHI1	0.938	0.882	0.957	0.933
	BHI2	0.942			
	BHI3	0.938			
EFE	EFE1	0.905	0.803	0.942	0.918
	EFE2	0.911			
	EFE3	0.897			
	EFE4	0.870			
FCC	FCC1	0.850	0.738	0.919	0.882
	FCC2	0.836			
	FCC3	0.897			
	FCC4	0.853			
HDM	HDM1	0.848	0.747	0.899	0.831
	HDM2	0.875			
	HDM3	0.870			
PFE	PFE1	0.890	0.803	0.925	0.878
	PFE2	0.894			
	PFE3	0.905			
SCI	SCI1	0.891	0.802	0.924	0.877
	SCI2	0.917			
	SCI3	0.879			
TRT	TRT1	0.734	0.598	0.816	0.719
	TRT2	0.703			
	TRT3	0.873			
USB	USB1	0.864	0.586	0.808	0.725
	USB2	0.743			
	USB3	0.678			

Table 2: Discriminant validity test

	BHI	EFE	FCC	HDM	PFE	SCI	TRT	USB
BHI	0.939							
EFE	0.366	0.896						
FCC	0.348	0.672	0.859					
HDM	0.397	0.692	0.764	0.864				
PFE	0.342	0.574	0.603	0.610	0.896			
SCI	0.390	0.586	0.709	0.663	0.776	0.896		
TRT	0.769	0.566	0.611	0.677	0.536	0.607	0.774	
USB	0.791	0.544	0.480	0.500	0.491	0.551	0.718	0.765

4.2 Inspecting Structural Model

The inner structural model was examined using a p-value of 0.05 or less as the significance threshold. Table 3 reveals that, with the exception of H1, H2, H3, all other hypotheses were supported. FCC ($\beta = -0.112$, $p < 0.05$), HDM ($\beta = -0.168$, $p < 0.05$), and TRT ($\beta = 0.0983$, $p < 0.05$) are substantially related to the Behavioral Intention of the student using metaverse technology for subjects related to import-export learning. Furthermore, BHI ($\beta = 0.791$, $p < 0.05$) shows a strong relationship with USB. In contrast, the constructs PFE ($\beta = -0.042$, $p > 0.05$), EFE ($\beta = 0.031$, $p > 0.05$), and SCI ($\beta = 0.000$, $p > 0.05$) were not

supported by the BHI to assess the use behavior of students. Overall, PFE and TRT account for 61.8% of the changes in BHI, whereas BHI accounts for 62.5% of the changes in USB.

Table 3: Results of hypotheses testing

Hypotheses	Path	Original sample (O)	T statistics ((O/STDEV))	P values	Remarks
H1	PFE -> BHI	-0.008	0.161	0.8720	Not Supported
H2	EFE -> BHI	0.031	0.735	0.4620	Not Supported
H3	SCI -> BHI	0.000	0.004	0.9970	Not Supported
H4	FCC -> BHI	-0.112	1.979	0.0480	Supported
H5	HDM -> BHI	-0.168	3.249	0.0010	Supported
H6	TRT -> BHI	0.938	21.247	0.0000	Supported
H7	BHI -> USB	0.791	58.064	0.0000	Supported

4.3 Discussion

The rapid development of technology suggests that the metaverse will play a significant role in future education. Therefore, the primary objective of this study was to identify the key factors influencing college students' willingness to adopt metaverse technology for import-export learning. Given the widespread use of the metaverse in online education, improving its educational capabilities is crucial for its success in the present context. In conjunction with the Unified Theory of Acceptance and Use of Technology (UTAUT), this study aimed to uncover the factors influencing students' intention to use metaverse technology for subjects related to international trade and offer recommendations for future advancements in metaverse technology in logistics education.

The findings revealed that facilitating conditions, hedonic motivation, and trust have a positive influence on students' behavioral intentions. When students have access to necessary resources and materials, such as high-speed internet, mobile devices, desktop computers, and laptops, their confidence in the usefulness of metaverse technology increases, thereby enhancing their intention to use it for import-export learning. Additionally, if students find the use of metaverse technology for studying import-export engaging and enjoyable, their hedonic motivation is amplified, fostering their curiosity and promoting continued usage of the technology in their educational pursuits. Positive user experiences with the technology contribute to increased future adoption. Furthermore, over 80% of students express readiness and enthusiasm to utilize metaverse technology for studying import-export subjects. Additionally, trust in the reliability and accuracy of the technology and the data it provides plays a crucial role in students' willingness to use it for import-export learning. Factors influencing trust include privacy and security concerns, the reliability of the information provided, and the perceived dependability of the underlying technology. Trust serves as a foundation for fostering positive attitudes and intentions towards using metaverse technology.

On the other hand, H1 is not supported, indicating that students may not fully grasp the potential of interactive and immersive features offered by metaverse technology to enhance their understanding of import-export concepts. This suggests a need for greater awareness and education about the potential benefits of metaverse technology in import-export learning. Similarly, H2 is not supported, indicating that the impact of effort expectancy on students' behavior is relatively lower. This could be attributed to the unfamiliarity of students with metaverse technology, as it is a relatively new concept, leading to underestimation of their ability to use and navigate it. Lastly, H3 is not supported, possibly due to the limited mention and application of metaverse technology in international education. The potential of the

metaverse for import-export learning might not have been fully realized, and personal preferences may have a stronger influence on individuals than social pressure. Utilizing the full potential of metaverse technology for import-export education requires demonstrating its benefits and practicality.

5. Conclusion and contributions

In term of theoretical contributions, this study contributes to the existing literature by examining the factors influencing college students' willingness to adopt metaverse technology for import-export learning. It expands the understanding of technology adoption in the educational context, specifically in the emerging field of the metaverse. Secondly, the study also integrates the Unified Theory of Acceptance and Use of Technology (UTAUT) framework into the context of metaverse technology adoption, providing empirical evidence on the applicability of this theory in the educational domain. Thirdly, by examining the role of facilitating conditions, hedonic motivation, and trust, the study sheds light on the specific factors that influence students' behavioral intentions to use metaverse technology for import-export learning. This adds to the knowledge base of the factors driving technology adoption in the educational context. Finally, the study challenges and expands upon previous research by investigating the impact of effort expectancy, which was found to have a relatively lower influence on behavior compared to other factors. This highlights the unique characteristics and challenges associated with adopting metaverse technology in the field of import-export education.

In term of managerial implications, the findings of this study provide valuable insights for educational institutions and policymakers regarding the adoption and integration of metaverse technology in import-export education. It emphasizes the importance of providing necessary resources and materials to students, such as high-speed internet and devices, to enhance their engagement and intention to use metaverse technology.

Moreover, the study underscores the significance of creating an engaging and enjoyable learning experience through metaverse technology. Educational institutions can leverage the immersive and interactive features of the metaverse to enhance student motivation and interest in import-export subjects, ultimately improving learning outcomes. Additionally, trust emerges as a crucial factor in students' willingness to use metaverse technology. Managers and policymakers should prioritize establishing trust in the reliability, security, and privacy aspects of the technology. Transparent communication and robust data protection measures can help build trust among students and encourage their adoption of metaverse technology for import-export learning.

The study's insights into the underutilization of metaverse technology in international education highlight the need for awareness campaigns and educational initiatives to familiarize students and educators with the potential benefits and applications of the metaverse in import-export education. Managers and policymakers can work towards integrating metaverse technology into the curriculum and providing training opportunities to enhance its adoption.

Metaverse technology lets students safely study global trade and logistics before applying their knowledge. This may increase training and prepare students for worldwide trade. Metaverse technology saves schools money. Virtual simulations and field excursions save schools money and time. Metaverse technology enables students to interact on projects and simulations. This activity can improve import-export teamwork and communication. Educators and developers should provide engaging, easy-to-use metaverse learning tools to facilitate import-export learning. These critical issues may enable educators and developers to encourage higher education students to research import-export themes using metaverse technology.

References

- Ab Hamid, M. R., Sami, W., & Mohmad Sidek, M. H. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics: Conference Series*. <https://doi.org/10.1088/1742-6596/890/1/012163>
- Akour, I. A., Al-Marroof, R. S., Alfaisal, R., & Salloum, S. A. (2022). A conceptual framework for determining metaverse adoption in higher institutions of gulf area: An empirical study using hybrid SEM-ANN approach. *Computers and Education: Artificial Intelligence*, 3, 100052. <https://doi.org/10.1016/j.caeai.2022.100052>
- Alnagrat, A., Che Ismail, R., Syed Idrus, S. Z., & Abdulhafith Alfaqi, R. M. (2022). A Review of Extended Reality (XR) Technologies in the Future of Human Education: Current Trend and Future Opportunity. *Journal of Human Centered Technology*, 1(2), 81–96. <https://doi.org/10.11113/humentech.v1n2.27>
- Alvarez-Risco, A., Del-Aguila-Arcentales, S., Rosen, M. A., & Yáñez, J. A. (2022). Social Cognitive Theory to Assess the Intention to Participate in the Facebook Metaverse by Citizens in Peru during the COVID-19 Pandemic. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 142. <https://doi.org/10.3390/joitmc8030142>
- Andrews, J. E., Ward, H., & Yoon, J. W. (2021). UTAUT as a Model for Understanding Intention to Adopt AI and Related Technologies among Librarians. *Journal of Academic Librarianship*, 47(6), 102437. <https://doi.org/10.1016/j.acalib.2021.102437>
- Chavoshi, A., & Hamidi, H. (2019). Social, individual, technological and pedagogical factors influencing mobile learning acceptance in higher education: A case from Iran. *Telematics and Informatics*. <https://doi.org/10.1016/j.tele.2018.09.007>
- Chong, A. Y. L. (2013). Predicting m-commerce adoption determinants: A neural network approach. *Expert Systems with Applications*, 40(2), 523–530. <https://doi.org/10.1016/J.ESWA.2012.07.068>
- Christopher Westland, J. (2010). Lower bounds on sample size in structural equation modeling. *Electronic Commerce Research and Applications*. <https://doi.org/10.1016/j.elerap.2010.07.003>
- Dečman, M. (2015). Modeling the acceptance of e-learning in mandatory environments of higher education: The influence of previous education and gender. *Computers in Human Behavior*, 49, 272–281. <https://doi.org/10.1016/j.chb.2015.03.022>
- Duarte, P., & Raposo, M. (2010). A PLS model to study brand preference: An application to the mobile phone market. In V. Esposito Vinzi, W. W. Chin, J. Henseler & H. Wang (Eds.). *Handbook of Partial Least Squares*.
- Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., Dennehy, D., Metri, B., Buhalis, D., Cheung, C. M. K., Conboy, K., Doyle, R., Dubey, R., Dutot, V., Felix, R., Goyal, D. P., Gustafsson, A., Hinsch, C., Jebabli, I., ... Wamba, S. F. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 66(July), 102542. <https://doi.org/10.1016/j.ijinfomgt.2022.102542>
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the Unified Theory of Acceptance and Use of Technology (UTAUT): Towards a Revised Theoretical Model. *Information Systems Frontiers*, 21(3), 719–734. <https://doi.org/10.1007/s10796-017-9774-y>

- Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., & Rstedt, M. S. (2014). a primer on partial least squares structural equation modelling. In *Practical Assessment, Research and Evaluation*.
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442–458. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Jafar, R. M. S., Ahmad, W., & Sun, Y. (2023). Unfolding the impacts of metaverse aspects on telepresence, product knowledge, and purchase intentions in the metaverse stores. *Technology in Society*, 74, 102265. <https://doi.org/10.1016/j.techsoc.2023.102265>
- Joo, D., Xu, W., Lee, J., Lee, C. K., & Woosnam, K. M. (2021). Residents' perceived risk, emotional solidarity, and support for tourism amidst the COVID-19 pandemic. *Journal of Destination Marketing and Management*, 19(January), 100553. <https://doi.org/10.1016/j.jdmm.2021.100553>
- Kumar, K., & Al-Besher, A. (2022). IoT enabled e-learning system for higher education. *Measurement: Sensors*, 24(August), 100480. <https://doi.org/10.1016/j.measen.2022.100480>
- Liébana-Cabanillas, F., Japutra, A., Molinillo, S., Singh, N., & Sinha, N. (2020). Assessment of mobile technology use in the emerging market: Analyzing intention to use m-payment services in India. *Telecommunications Policy*, 44(9). <https://doi.org/10.1016/j.telpol.2020.102009>
- Magsamen-Conrad, K., Upadhyaya, S., Joa, C. Y., & Dowd, J. (2015). Bridging the divide: Using UTAUT to predict multigenerational tablet adoption practices. *Computers in Human Behavior*, 50, 186–196. <https://doi.org/10.1016/j.chb.2015.03.032>
- Nguyen, L. T., Dwivedi, Y. K., Tan, G. W. H., Aw, E. C. X., Lo, P. S., & Ooi, K. B. (2022). Unlocking Pathways to Mobile Payment Satisfaction and Commitment. *Journal of Computer Information Systems*, 00(00), 1–18. <https://doi.org/10.1080/08874417.2022.2119444>
- Ning, H., Wang, H., Lin, Y., Wang, W., Dhelim, S., Farha, F., Ding, J., & Daneshmand, M. (2021). *A Survey on Metaverse: the State-of-the-art, Technologies, Applications, and Challenges*. 1–34. <http://arxiv.org/abs/2111.09673>
- Safsouf, Y., Mansouri, K., & Poirier, F. (2020). Smart learning environment, measure online student satisfaction: A case study in the context of higher education in Morocco. *2020 International Conference on Electrical and Information Technologies, ICEIT 2020, January 2021*. <https://doi.org/10.1109/ICEIT48248.2020.9113189>
- Shen, S., Xu, K., Sotiriadis, M., & Wang, Y. (2022). Exploring the factors influencing the adoption and usage of Augmented Reality and Virtual Reality applications in tourism education within the context of COVID-19 pandemic. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 30(January), 100373. <https://doi.org/10.1016/j.jhlste.2022.100373>
- Shin, D., & Hwang, Y. (2020). The effects of security and traceability of blockchain on digital affordance. *Online Information Review*, 44(4), 913–932. <https://doi.org/10.1108/OIR-01-2019-0013>
- Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the utaut model to understand the customers' acceptance and use of internet banking in lebanon a structural equation modeling approach. *Information Technology and People*. <https://doi.org/10.1108/ITP-02-2014-0034>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*.

Venkatesh, V., Thong, J. Y. L., Chan, F. K. Y., Hu, P. J. H., & Brown, S. A. (2011). Extending the two-stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information Systems Journal*. <https://doi.org/10.1111/j.1365-2575.2011.00373.x>

Wong, C. H., Tan, G. W. H., Loke, S. P., & Ooi, K. B. (2015). Adoption of mobile social networking sites for learning? *Online Information Review*. <https://doi.org/10.1108/OIR-05-2015-0152>

Yuan, Y. P., Wei-Han Tan, G., Ooi, K. B., & Lim, W. L. (2021). Can COVID-19 pandemic influence experience response in mobile learning? *Telematics and Informatics*, 64(April), 101676. <https://doi.org/10.1016/j.tele.2021.101676>

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 - Hotline: (028) 5422 6666 * (028) 5422 5555