DIFT2025-1

ICDI International College of DIGITAL INNOVATION CHIANG MAI UNIVERSITY

Digital Innovation and Financial Technology Conference (2025-1)

ABSTRACTS BOOK

Innovation in the Age of AI: Balancing Automation and Human Creativity

7th June 2025

International College of Digital Innovation
Chiang Mai University
Chaing Mai, Thailand

PREFACE

This abstract booklet contains the abstracts of the papers presented at the DIFT 2025-1 Conference, which is organized by the International College of Digital Innovation, Chiang Mai University. The conference will be held at the International College of Digital Innovation Building, Chiang Mai, Thailand, on 7 June 2025.

The aim of the conference is to bring together policymakers, researchers, and professionals in the field of policymaking to exchange ideas, share experiences, and foster meaningful discussions. Participants from academia, industry, research institutions, R&D enterprises, and governmental organizations are invited to contribute and collaborate on a range of topics relevant to digital innovation and policy development. While the main themes focus on policymaking and innovation, the conference also encourages contributions from related and emerging areas.

All submitted abstracts have been reviewed by the DIFT 2025-1 Scientific Committee for content and presentation quality. Further details about the conference can be found at: https://icdi.cmu.ac.th/DIFT/2025-1/

We would like to extend our sincere thanks to all committee members and contributors. We wish everyone a successful and engaging conference experience at DIFT 2025-1.

DIFT 2025-1 Organizer
June 2025

DIFT 2025-1 ORGANIZING COMMITTEE

Advisory Committee

1. Dean, International College of Digital Innovation
2. Associate Dean (Assoc. Prof. Dr. Manad Khamkong)
3. Associate Dean (Asst. Prof. Dr. Chaiwuth Tangsomchai)
4. Associate Dean (Asst. Prof. Dr. Benjamas Suksatit)
5. Secretary, International College of Digital Innovation
6. Head, School of Digital Innovation
7. Deputy Head, School of Digital Innovation
8. Chair, B.Sc. Program in Digital Innovation (International Program)
9. Secretary, B.Sc. Program in Digital Innovation (International Program)

Executive Committee

1. Assoc. Prof. Dr. Somchai Sriyab (Associate Dean)	Chair
2. Chair, Graduate Program Committee, Digital Innovation and Financial Technology (International Program)	Vice-Chair
3. Secretary, Graduate Program Committee	Member
4. Dr. Worawit Tepsan	Member
5. Dr. Naret Suyaroj	Member
6. Dr. Suttida Suwannayod	Member
7. Dr. Piyachat Udomwong	Secretary
8. Ms. Wiranya Ratnapinda	Assistant Secretary

Academic Committee

1. Dr. Nathapon Udomlertsakul	Chair
2. Dr. Parot Ratnapinda	Secretary
3. Ms. Ruchanee Tinamas	Assistant Secretary
4. Mr. Watcharapong Dilokjanya	Assistant Secretary

Presentation Management Subcommittee

1. Asst. Prof. Dr. Ahmad Yahya Dawod	Member
2. Asst. Prof. Dr. Seamus Lyons	Member
3. Dr. Michael John Harris	Member
4. Dr. Phillip Y Freiberg	Member
5. Dr. Siva Shankar Ramasamy	Member

Review Subcommittee

1. Assoc. Prof. Dr. Napas Hanpornchai	Member
2. Asst. Prof. Dr. Nopasit Chakpitak	Member

3.	Dr. Anukul Tamprasirt	Member
4.	Dr. Nathee Naktnasukanjn	Member
5.	Dr. Piang-or Loahavilai	Member
6.	Dr. Tanarat Rattanadamrongaksorn	Member
7.	Dr. Somsak Chanaim	Member
8.	Dr. Naret Suyaroj	Member
9.	Dr. Worawit Tepsan	Member
10.	Dr. Piyachat Udomwong	Member
11.	Dr. Nuttaphat Sukchitt	Member

Ceremony Committee

1.	Dr. Worawit Tepsan	Chair
2.	Ms. Phimphat Riampanich	Member
3.	Mr. Silpa Singharajwarapan	Member
4.	Ms. Kanyanatthakarn Intharuck	Member
5.	Ms. Sureeporn Chaiyaworrakamol	Secretary

Venue, AV Equipment, and Transportation Committee

1.	Dr. Naret Suyaroj	Chair
2.	Mr. Kraisorn Wangkeeree	Member
3.	Ms. Nanthana Songchit	Member
4.	Mr. Pirapong Wongsaensee	Secretary
5.	Mr. Kanyawut Ariya	Assistant Secretary

Finance, Procurement, Evaluation, and Reporting Committee

1.	Dr. Suttida Suwannayod	Chair
2.	Ms. Nanthana Songchit	Member
3.	Ms. Anchaya Chursook	Member
4.	Ms. Mintra Inthajak	Secretary
5.	Ms. Sirirag Yodpuntong	Assistant Secretary

CONFERENCE EXTERNAL COMMITTEE

Prof. Iuliia Trabskaia, PhD
Faculty of Innovation and Technological Management
ITMO University
Saint Petersburg, Russia.

Prof. Anna Daviy, PhD
Faculty of Innovation and Technological Management
ITMO University
Saint Petersburg, Russia.

Assoc. Prof. Dr. S P Gayathri, PhD
Department of Computer Science
Government Arts College For Women
Tamil Nadu, India

Asst. Prof. Dr. Kittawit Autchariyapanitkul, PhD
Faculty of Economics
Maejo University
Chaing Mai, Thailand

Dr. Watcharin Sarachai, PhD
Faculty of Science
Maejo University
Chaing Mai, Thailand

CONTENTS

Page

SCHEDULE

DIFT2025-1

Innovation in the Age of AI: Balancing Automation and Human Creativity

7 June 2025, 08:00–16:00

International College of Digital Innovation Building, Chiang Mai University

Room: ICB 1102 [Zoom ID: 872 909 2671, Passcode: 2671]	
08:00 - 08:45	Registration
08:45 - 08:50	Report Speech Asst. Prof. Dr. Thacha Lawanna Head of the school of Digital Innovation
08:45 - 09:00	Opening Speech Asst. Prof. Dr. Chaiwuth Tangsomchai Associate Dean, International College of Digital Innovation
09:00 - 10:00	Keynote Talk "AI Adoption Journey: SCBX's Strategy for Al Innovation and Business Impact through Al Use Cases" Veerakit Ussamarn Senior R&D Associate, SCBX R&D and Innovation Lab
10:00 - 10:30	Refreshment
10:30 - 14:20	Contributed Talk Break Room
14:20 - 14:40	Refreshment
14:40 - 14:50	Reward Announcement
14:50 - 15:00	Closing Ceremony

CONTRIBUTED TALK SCHEDULE

	Room: ICB 1102 [Zoom ID: 872 909 2671, Passcode: 2671] **Session Committees:** Prof. Iuliia Trabskaia Prof. Anna Daviy Dr. Watcharin Sarachai Dr. Parot Ratnapinda Dr. Michael John Harris	**Room No. 2 (ICB1211) [Zoom ID: 872 909 2671, Passcode: 2671]** **Session Committees:** Assoc. Prof. Dr. S P Gayathri Asst. Prof. Dr. Kittawit Autchariyapanitkul Dr. Phillip Y Freiberg Dr. Siva Shankar Ramasamy
10:30 - 10:50	Chinese Sports Major College Students' Purchase Intention Toward Personalized AI Smart Devices: An SOR Model Approach *Jingxian Chen*	The Potential for Bike-Sharing Expansion in Thailand *Natchanon Chaitip*
10:50 - 11:10	Live streaming sales on consumer decision-making Behavior based on the AISAS Model *Lingyi Wang*	Impacts of GHG Protocol on Cross-Border Japan–Thailand Automotive Supply Chains *Preyamin Kannaphan*
11:10 - 11:30	Expectation Confirmation Model for Consumer Satisfaction and Continuance Intention: A Case Study of Hema Fresh *Guiying Lyu*	The Impact of Digital Financial Inclusion on Regional Economic Growth in China *Yanjie Chen*
11:30 - 11:50	Understanding the Key Drivers in Using Mobile Payment (M-Payment) Among Generation Z Consumers in Daily Consumption Scenarios *Quanjin Xiang*	The Impact of BIM Technology on Cost Management in Construction Engineering Projects *Fan Jingmiao*
11:50 - 13:00	Lunch	

	Room: ICB 1102 [Zoom ID: 872 909 2671, Passcode: 2671] **Session Committees:** Prof. Iuliia Trabskaia Prof. Anna Daviy Dr. Watcharin Sarachai Dr. Nuttaphat Sukchitt	**Room No. 2 (ICB1211) [Zoom ID: 872 909 2671, Passcode: 2671]** **Session Committees:** Assoc. Prof. Dr. S P Gayathri Asst. Prof. Dr. Seamus Lyons Asst. Prof. Dr. Ahmad Yahya Dawod Dr. Siva Shankar Ramasamy
13:00 - 13:20	AirAccount: A Semi-Custody& Never Lost Crypto Account Based on TEE and SDSS *Huifeng Jiao*	Entry Strategy for Thai Vitamin C Beverages to China through Cross-Border E-Commerce Xiao Tan
13:20 - 13:40	A portfolio optimization model for return trend rate and risk trend rate based on machine learning *Chunman Zhu*	Higher Intellectual Risk-Taking, Greater Acceptance of GAI? Examining the adoption of GAI by integrating UTAUT Among Higher Education Students *Tianjing Xin*
13:40 - 14:00	Pathways to Decarbonizing Thailand's Power System with Renewables and Flexibility Solutions *Muhammad Ilyas*	Intangible Cultural Heritage Meets Modern Marketing: A Case Study of the Beauty Brand Florasis *Qingxia Zhao*
14:00 - 14:20	Intelligent Barter Platform: Enhancing Matching and Optimizing Item Exchange Efficiency with Enterprise AI and Blockchain *Jianlei Qian*	The Impact of Personalized Recommendations on Tourism Platforms on Tourists' Behavioural Intentions *Hongmei Duan*

KEYNOTE TALK

AI ADOPTION JOURNEY: SCBX'S STRATEGY FOR AI INNOVATION AND BUSINESS IMPACT THROUGH AI USE CASES

Veerakit Ussamarn
Senior R&D Associate
SCBX R&D and Innovation Lab

ABSTRACT

This presentation explores SCBX's strategic journey towards becoming an AI-first organization. The discussion will begin with an overview of SCBX's vision and the rationale behind prioritizing AI as a core component of its business strategy. The company aims to achieve a 75% AI-enabled revenue uplift. This ambitious goal highlights the transformative potential of AI in driving business impact and optimizing operation investment. The presentation will then examine the methodologies and key focus areas essential for successful AI adoption at the corporate level. This includes strategic planning, stakeholder engagement, and the development of robust AI capabilities tailored to meet specific business needs. Emphasis will be placed on aligning AI initiatives with corporate goals to ensure seamless integration and maximum impact. Furthermore, the presentation will showcase various AI use cases that have been implemented or are currently in the proof-of-concept (POC) stages within SCBX. These use cases include voicebot applications, chatbot solutions, market conduct validation, quality assurance, and SCBX 10X's proprietary model, Typhoon. Each example will illustrate the practical benefits and challenges encountered during the deployment of AI technologies. Additionally, the presentation will cover efforts in supporting portfolio companies to develop their generative AI (GenAI) capabilities. By leveraging AI, these companies can enhance their operational efficiency, improve customer experience, and drive innovation in their respective domains. In conclusion, this presentation aims to provide graduate students with a comprehensive understanding of SCBX's AI-first vision, the strategic approach to AI adoption, and the tangible benefits realized through various AI initiatives. Attendees will gain insights into the practical aspects of managing AI projects and the critical factors that contribute to successful AI integration at the corporate level.

CONTRIBUTUED TALK

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

CHINESE SPORTS MAJOR COLLEGE STUDENTS' PURCHASE INTENTION TOWARD PERSONALIZED AI SMART DEVICES: AN SOR MODEL APPROACH

Jingxian Chen[1] and Ahmad Yahya Dawod[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]jingxian_chen@cmu.ac.th, [2]ahmadyahyadawod.a@cmu.ac.th

ABSTRACT

This study explores how AI smart devices influence the purchase intention of Chinese sports major college students in the context of digital transformation. Grounded in the Stimulus-Organism-Response (SOR) model, it examines how external stimuli—such as product quality, brand attitude, social interaction, performance expectation, and fashion perception—affect purchase intention through the mediating role of perceived value. A quantitative survey was conducted to build a theoretical model that captures the behavioral characteristics of this group in the "Internet Plus" era. Regression analysis reveals that external stimuli significantly impact both perceived value ($R^2 = 0.608$, $\beta = 0.225$ for brand attitude) and purchase intention ($R^2 = 0.637$, $\beta = 0.189$ for price attitude), highlighting the dominant roles of brand and price factors. Perceived value is found to be a significant mediator in the relationship between stimuli and behavioral response. This research extends the SOR framework to the domain of personalized AI smart devices, enriching consumer behavior theory in the digital health and fitness technology market. It emphasizes that sports major students have strong health awareness, a high level of tech acceptance, and unique professional needs. The findings offer practical insights for product design, user experience optimization, and brand development, while also informing educators on integrating AI technologies into curricula. Furthermore, the study identifies challenges such as product homogeneity and limited application scenarios, calling for diversified innovation and regulatory improvements for sustainable industry growth.

KEYWORDS: Personalized AI Smart Devices, Purchase Intention, Perceived Value, S-O-R Model, Sports Major College Students, Consumer Behavior, Product Design, Digital Transformation.

LIVE STREAMING SALES ON CONSUMER DECISION-MAKING BEHAVIOR BASED ON THE AISAS MODEL

Wang Lingyi[1] and Ahamd Yahya Dawod[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]lingyi_w@cmu.ac.th, [2]ahmadyahyadawod.a@cmu.ac.th

ABSTRACT

Live-streaming sales have revolutionized digital commerce, blending entertainment, interaction, and retail into a real-time experience. This study investigates the impact of emotional marketing on consumer decision-making behavior using the AISAS model—Attention, Interest, Search, Action, Sharing—as a conceptual framework. A structured questionnaire was distributed to 400 participants who actively engaged in live-stream shopping. Using Jamovi software for statistical analysis, this study employed descriptive statistics, exploratory factor analysis (EFA), reliability testing, and multiple regression to analyze the relationship between emotional factors and consumer engagement. Results show that emotional marketing significantly influences the Attention and Interest stages, ultimately leading to increased purchase intent and sharing behaviors. The findings provide actionable insights for brands and platforms aiming to optimize live sales strategies in the digital era.

KEYWORDS: Live-streaming Sales, Emotional Marketing, AISAS Model, Consumer Behavior, trust, impulse buying, social commerce

EXPECTATION CONFIRMATION MODEL FOR CONSUMER SATISFACTION AND CONTINUANCE INTENTION: A CASE STUDY OF HEMA FRESH

Guiying Lyu[1] and Ahamd Yahya Dawod[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]guiying_lyu@cmu.ac.th, [2]ahmadyahyadawod.a@cmu.ac.th

ABSTRACT

This study examines the applicability of the Expectation Confirmation Model (ECM) in the context of Hema Fresh, a leading fresh food e-commerce platform in China, to understand consumer satisfaction and continuance intention in the new retail sector. By extending ECM with perceived value and logistics service quality, the research investigates the relationships among consumer expectations, confirmation, satisfaction, and continued use intention. Data were collected from 497 Hema Fresh users in Kunming, China, and analyzed using Structural Equation Modeling (SEM) in Jamovi. Results indicate that perceived usefulness significantly influences satisfaction through confirmation ($\beta = 0.387$, $p < 0.001$), explaining 30.6% of variance in satisfaction and 29.3% in continuance intention. Perceived value ($\beta = 0.266$, $p < 0.001$) and logistics service quality ($\beta = 0.318$, $p < 0.001$) also positively impact satisfaction, with perceived value mediating these relationships. The findings validate ECM's applicability in fresh food e-commerce and provide actionable insights for enhancing consumer retention through improved logistics and value propositions. This study contributes to the theoretical understanding of consumer behavior in new retail and offers practical strategies for operational optimization.

KEYWORDS: Expectation Confirmation Model, Consumer Satisfaction, Continuance Intention, Perceived Value, Logistics Service Quality, Fresh Food E-Commerce, Hema Fresh, New Retail.

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

UNDERSTANDING THE KEY DRIVERS IN USING MOBILE PAYMENT (M-PAYMENT) AMONG GENERATION Z CONSUMERS IN DAILY CONSUMPTION SCENARIOS

Quanjin Xiang[1] and Ahamd Yahya Dawod[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: quanjin_xiang@cmu.ac.th[1], ahmadyahyadawod.a@cmu.ac.th[2]

ABSTRACT

This research aims to examine the most driving factors to the adoption of mobile payments by Generation Z within the context of everyday consumption situations. It integrates the Unified Theory of Technology Acceptance and Use (UTAUT) and the Mental Accounting Theory (MAT) to form a complete research framework for conducting research on user adoption intentions. Data were collected using an online survey of Gen Z mobile payment consumers on an annual basis. The survey captured the constructs related to UTAUT—performance expectations, effort expectations, and social influence—through the integration of the mental budgeting element of mental accounting theory to account for perceived benefits and perceived risk. Multiple linear regression and mediation analysis were used to test hypotheses. Findings from the research evidence that performance expectations, effort expectations, social influence and perceived benefits have a positive determinant impact on mobile payment adoption, while perceived risk has the reverse effect. Mental budget plays a mediating role within the adoption intention as well.

KEYWORDS: Mobile Payment, Generation Z, Performance Expectancy, Effort Expectancy, Social Influence, Mental Budgeting, Perceived Benefits, Perceived Risks

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

AIRACCOUNT: A SEMI-CUSTODY & NEVER LOST CRYPTO ACCOUNT BASED ON TEE AND SDSS

Huifeng Jiao[1] and Nathapon Udomlertsakul[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]huifeng_jiao@cmu.ac.th, [2]nathapon.u@icdi.cmu.ac.th

ABSTRACT

Managing assets on blockchains fundamentally relies on cryptographic accounts secured by self-custodied private keys. However, from Human-Computer Interaction (HCI) and Technology Acceptance Model (TAM) perspectives, this paradigm presents significant usability and security challenges, including irrecoverable loss from lost keys, steep technical learning curves, and vulnerability to operational errors, and more bad UX, thereby hindering mass adoption. This research introduces AirAccount, a novel crypto account framework designed to provide a secure, user-friendly, and low-cost alternative essential for blockchain's broader accessibility. Leveraging the programmability of ERC-4337 Account Abstraction, AirAccount integrates Trusted Execution Environment (TEE) technology and a Standardized Decentralized Service System (SDSS) architecture. This approach enables enhanced security features such as fingerprint second verification and a semi-custody model where partial key management is securely handled by TEE. Furthermore, AirAccount ensures accounts are "never lost" through robust social recovery mechanisms and improves usability via features like social account binding and support for gasless transactions facilitated by the SDSS. AirAccount aims to bridge the gap between complex blockchain technology and everyday users by offering a permissionless, resilient, and accessible account system, paving the way for safer and more intuitive interaction with decentralized applications.

KEYWORDS: Account Abstraction, ERC-4337, Smart Contract Wallet, Trusted Execution Environment (TEE), Blockchain Usability, Key Management, Social Recovery, Semi-Custody

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

A PORTFOLIO OPTIMIZATION MODEL FOR RETURN TREND RATE AND RISK TREND RATE BASED ON MACHINE LEARNING

Chunman Zhu, Ahmad Yahya Dawod, Yu Xi, and Gongsuo Chen
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: chunman_zhu@cmu.ac.th

ABSTRACT

This paper presents a machine learning-based portfolio optimization model alongside a trading strategy algorithm. There are two distinct steps to the approach. Firstly, the long short-term memory (LSTM) neural network model was used to predict the closing price of stocks in the following 4 days. The average rise and fall rate over these four days is then calculated as the stock's return trend rate, which can measure the direction and intensity of the stock's rise and fall. The same method is used to predict the average of the industry index's rise and fall rate over the next four days as the risk trend rate. In the second step, the improved mean-variance model (IMV) model is used to provide customers with the stock portfolio purchasing strategy based on the return trend rate and risk trend rate. The experimental results demonstrate that the approach has a certain application value and outperforms the traditional method in terms of annual returns and Sharpe ratio, using the Shanghai Stock Exchange and the Shenzhen Stock Exchange as study samples. The model shows approximately 1% improvement in prediction accuracy. The latest advancements in machine learning provide substantial prospects for tactics involving the purchase of portfolios.

KEYWORDS: Long Short-Term Memory Neural Network, Portfolio Optimization, Return Trend Rate, Risk Trend Rate, Mean-Variance Model

PATHWAYS TO DECARBONIZING THAILAND'S POWER SYSTEM WITH RENEWABLES AND FLEXIBILITY SOLUTIONS

Muhammad Ilyas[1] and Naret Suyaroj[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]muhammad_ilyas@cmu.ac.th, [2]naret.suyaroj@cmu.ac.th

ABSTRACT

Thailand's commitment to achieve carbon neutrality by 2050 and the Sustainable Development Goals demands a restructured power system, which is capable of integrating renewable energy sources like solar, wind, and hydro power while maintaining stability and flexibility of the overall grid. This research begins by analyzing current power system of Thailand using PyPSA, which is an open-source modeling tool, to assess its existing infrastructure, evaluate flexibility through battery storage and optionally demand-side management, and identify issues related to the intermittent nature of renewable energy sources. Building on this assessment, the study will validate optimization strategies through advanced scenario analysis and thus propose policy-guiding transition pathways. By reducing renewable curtailment and improving resilience of the system, this research aims to support optimized and cost-effective energy transition. The findings of this work will offer a validated system model and actionable recommendations, contributing to SDG 7 (Affordable and Clean Energy), Thailand's net-zero ambitions, and global climate mitigation targets.

KEYWORDS: Renewable Energy Integration, Decarbonization, Thailand Power Sector, PyPSA, ASEAN Power Grid

INTELLIGENT BARTER PLATFORM: ENHANCING MATCHING AND OPTIMIZING ITEM EXCHANGE EFFICIENCY WITH ENTERPRISE AI AND BLOCKCHAIN

Jianlei Qian[1], Kun Wang[2] and Napat Harnpornchai[3]

[1]International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: jianlei_qian@cmu.ac.th

[2]Shandong University of Finance and Economics, Jinan,250014, China
E-mail: 20078504@sdufe.edu.cn

[3]Center of Excellence in Econometrics, Faculty of Economics, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: napaticdi@gmail.com

ABSTRACT

In the context of today's rapidly evolving global digital economy, the traditional barter trade model encounters significant challenges due to its inefficiency and security concerns, thereby impeding the swift and efficient development of trade. Traditional barter transactions lack transparency and are difficult to track, complicating the monitoring of transaction histories and the flow of commodities. This increases transaction risks and complicates dispute resolution. While various technological solutions exist in the market, they often operate in isolation and lack effective integration. The smart barter platform proposed in this study aims to create an integrated ecosystem where multiple technologies—such as AI, blockchain, NFC, and IoT—work synergistically to enhance overall transaction efficiency and user experience. Leveraging deep learning and machine learning algorithms, the platform can accurately identify market demand, optimize supply chains, and predict demand trends. Blockchain technology ensures the transparency, security, and traceability of transactions. The core contribution of this study is to propose an innovative algorithm that leverages AI to accurately predict and intelligently match market supply and demand while ensuring transaction transparency and temperability through blockchain technology. Through collaborative tests with e-commerce companies, we have verified the significant advantages of the intelligent barter platform in improving transaction success rates and ensuring transaction security. Test results indicate that companies using the intelligent barter platform experienced an average increase of 15.5% in transaction success rates. Consequently, this study not only provides an innovative technological solution for barter transactions but also offers valuable insights into new business models within the digital economy.

KEYWORDS: Artificial intelligence, enhanced matching recommended transaction algorithm, blockchain, barter transactions

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

THE POTENTIAL FOR BIKE-SHARING EXPANSION IN THAILAND

Natchanon Chaitip[1] and Piang-or Loahavilai[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]natchanon_cha@cmu.ac.th, [2]piangor@gmail.com

ABSTRACT

With increasing urbanization and a growing focus on sustainable transportation, bike-sharing services have gained attention as an alternative mode of transport (Shaheen, Guzman, & Zhang, 2010). This study examines the feasibility of expanding bike-sharing systems in Thailand by assessing market demand, infrastructure development, government policies, and user preferences. The research utilizes a combination of surveys, case studies, and industry data to explore both opportunities and challenges in scaling up bike-sharing services. Findings indicate that factors such as traffic congestion, environmental awareness, and digital payment adoption support the growth of bike-sharing. However, challenges such as limited cycling infrastructure, seasonal weather variations, and safety concerns remain key barriers. To facilitate expansion, collaboration between public and private sectors, improved infrastructure, and policy incentives are necessary. The insights from this study aim to inform policymakers, urban planners, and mobility service providers on strategies to enhance Thailand's bike-sharing ecosystem.

KEYWORDS: Bike-Sharing, Sustainable Transport, Urban Mobility, Thailand, Micro-Mobility Expansion

IMPACTS OF GHG PROTOCOL ON CROSS-BORDER JAPAN–THAILAND AUTOMOTIVE SUPPLY CHAINS

Preyamin Kannaphan[1], Anukul Tamprasirt[2] and Suttida Suwannayod[3]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]preyamin_k@cmu.ac.th, [2]anukul@innova.or.th, and [3]suttida.su@cmu.ac.th

ABSTRACT

The expansion of the automotive industry has significantly contributed to the increase in greenhouse gas emissions through cross-border supply chains. Consequently, the internationalization of manufacturing and distribution networks presents considerable challenges for carbon accounting, transparency, and mitigation under established frameworks such as the Greenhouse Gas (GHG) Protocol. As a globally recognized standard, the GHG Protocol plays an essential role in measuring, reporting, and managing greenhouse gas emissions from organizations. In the Japan–Thailand automotive sector, manufacturers are increasingly required to account for emissions across their global operations, including indirect emissions. Building upon this context, this research examines the impact of Scope 3 emissions—which originate from activities beyond a company's direct operations—on Japanese automotive supply chains operating in Thailand, using the GHG Protocol as the foundational framework for analysis. The results underscore the importance of embedding Scope 3 emissions into supply chain governance to maintain competitiveness, comply with global sustainability benchmarks, and support Thailand's long-term carbon neutrality targets.

KEYWORDS: GHG Protocol, Scope 3 Emissions, Japan–Thailand Automotive Supply Chain, Cross-Border Sustainability, Carbon Emission

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

THE IMPACT OF DIGITAL FINANCIAL INCLUSION ON REGIONAL ECONOMIC GROWTH IN CHINA

Yanjie Chen[1] and Nathee Naktanasukanjn[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]chen_yan@cmu.ac.th, [2]nathee@cmuic.net

ABSTRACT

This study explores the impact of digital financial inclusion (DFI) on regional economic growth in China, emphasizing disparities across the eastern, central, western, and northeastern regions. By analyzing provincial panel data (2015–2023) and employing econometric models, the research reveals that DFI's contribution to economic growth varies significantly depending on regional infrastructure, policy environments, and income levels. Key findings indicate stronger growth-promoting effects in digitally advanced regions, while government fiscal interventions demonstrate heightened efficacy in areas with lower DFI adoption. Additionally, the influence of DFI exhibits a gradient pattern aligned with regional economic development stages, and innovation-driven investments yield measurable benefits primarily in high-income provinces. These results underscore the necessity of spatially tailored policies to address China's regional imbalances, offering actionable insights for leveraging DFI as a tool to advance equitable growth under the national "Common Prosperity" agenda.

KEYWORDS: Digital Financial Inclusion, Regional Economic Growth, Socioeconomic Disparities, Policy Frameworks

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

THE IMPACT OF BIM TECHNOLOGY ON COST MANAGEMENT IN CONSTRUCTION ENGINEERING PROJECTS

Jingmiao Fan[1], Silpa Singharajwarapan[2] and Nathapon Udomlertsakul[3]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]jingmiao_fan@cmu.ac.th, [2]silpa.s@cmu.ac.th, and [3]nathapon.u@icdi.cmu.ac.th

ABSTRACT

In the course of the construction industry's development, cost control issues have continually surfaced. As a core component of project management, effective cost control plays a decisive role in realizing the economic benefits of a project. However, many construction enterprises still adopt relatively traditional and extensive management practices, leading to inadequate cost control and a lack of reliable methods for cost prediction and management. In the area of cost forecasting, integrating the BIM information platform with BP neural networks can significantly enhance prediction accuracy and support dynamic cost monitoring. In terms of cost management, utilizing BIM as a collaborative platform and adopting appropriate cost management approaches—particularly the multi-level Earned Value Management (EVM) method—has proven advantageous. This method overcomes the limitations of traditional EVM by decomposing the project structure into multiple hierarchical levels, enabling more precise control over project costs. This study investigates cost control during the construction phase through the integration of BIM technology, BP neural networks, and multi-level EVM. The main research focuses are as follows: (1) By analyzing the current challenges in construction cost control and introducing the advantages of BIM technology across various aspects of cost management, the study emphasizes the pivotal role of cost forecasting. A dynamic material price prediction model based on BP neural networks is developed and integrated into the BIM platform to establish a reliable baseline for construction cost forecasting and subsequent cost control efforts. (2) The study highlights the strengths of multi-level EVM in improving cost control. By combining BIM technology with the BP neural network-based cost prediction model, the proposed approach addresses inaccuracies in the calculation of key parameters within traditional multi-level EVM. It refines the practical application process of multi-level EVM, enabling precise identification and analysis of cost deviations during construction. (3) Furthermore, by leveraging BIM technology, the research implements a comprehensive cost management system encompassing three stages: pre-construction cost forecasting, real-time cost control during construction, and post-construction cost analysis. The results demonstrate that the proposed integrated approach holds substantial practical significance for improving cost management in construction projects.

KEYWORDS: BIM Technology, BP Neural Network, Multi-level Earned Value

ENTRY STRATEGY FOR THAI VITAMIN C BEVERAGES TO CHINA THROUGH CROSS-BORDER E-COMMERCE

Xiao Tan[1] and Piang-or Loahavilai[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]xiao_t@cmu.ac.th, [2]piangor@gmail.com

ABSTRACT

The research investigates how Thai vitamin C beverage companies can successfully enter the Chinese market via cross-border e-commerce, addressing challenges about market access and sustainable development. Utilizing a quantitative approach, the research gathers data on Chinese consumers' preferences, engagement, and brand awareness through questionnaires for statistical analysis. The findings identify key factors influencing consumers' purchase intentions, such as health awareness, brand recognition, perceived quality, and perceived value. This research's conclusions offer theoretical insights and practical recommendations for Thai companies to design effective market entry strategies, enhancing their competitiveness and supporting sustainable development in the Chinese cross-border e-commerce landscape.

KEYWORDS: Cross-Border E-Commerce (CBEC), Social Commerce Marketing, Dynamic Capabilities, Ambidextrous Innovation

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

HIGHER INTELLECTUAL RISK-TAKING, GREATER ACCEPTANCE OF GAI? EXAMINING THE ADOPTION OF GAI BY INTEGRATING UTAUT AMONG HIGHER EDUCATION STUDENTS

Tianjing Xin[1,2] and Worawit Tepsan[1*]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand[1]
Zhejiang Business Technology Institute, Ningbo, 315012, China[2]
E-mail: tianjing_xin@cmu.ac.th

International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand[1*]
E-mail: worawit.tepsan@cmu.ac.th

ABSTRACT

By expanding the Unified Theory of Acceptance and Use of Technology (UTAUT) model, this research investigates the acceptance of Generative AI (GAI) within higher education students with a novel integration of Intellectual Risk-Taking (IRT) as a key variable. As emerging economies lead technological innovation and digital transformation in higher education, understanding technology adoption provides critical insights into global educational technology trends. Utilizing a quantitative methodology, we conducted a survey among 231 students and utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) for data processing. The findings indicate that performance expectancy and self-efficacy exert significant influences on behavioral intention. Intellectual risk-taking positively correlates with usage behavior. Furthermore, behavioral intention stands as a strong predictor of actual usage, whereas effort expectancy and social influence do not positively affect behavioral intention, and facilitating conditions did not directly influence use behavior. The research contributes theoretically by extending UTAUT within the framework of nascent educational technology across global higher education landscapes. By examining technology acceptance in a rapidly digitalizing educational ecosystem, the study offers generalizable insights into psychological mechanisms of technological innovation adoption. Practically, the research provides empirical strategies for institutional technology integration, highlighting the pivotal function of individual psychosocial determinants in technology acceptance and setting a basis for comparative investigation of AI-enhanced educational settings globally.

KEYWORDS: Generative Artificial Intelligence (GAI), UTAUT, Technology Acceptance, Higher Education, Self-Efficacy, Intellectual Risk-Taking

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

INTANGIBLE CULTURAL HERITAGE MEETS MODERN MARKETING: A CASE STUDY OF THE BEAUTY BRAND FLORASIS

Qingxia Zhao[1] and Piang-or Loahavilai[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]qingxia_zhao@cmu.ac.th, [1]piangor@gmail.com

ABSTRACT

With the rapid growth of intangible cultural heritage (ICH) consumption in China's e-commerce environment, an increasing number of brands are incorporating ICH elements to enhance their market competitiveness. However, existing research mainly focuses on the application of ICH in tourism and offline contexts, with limited attention given to the integration of ICH and brand digital marketing. This study, based on the Customer-Based Brand Equity (CBBE) model, employs case analysis and text analysis to explore the ICH marketing strategies of the modern Chinese beauty brand Florasis. The findings show that Florasis has successfully enhanced its brand equity and promoted the commercialization of ICH through social media marketing, KOL endorsements, cross-industry collaborations, product innovation, and ICH storytelling. Furthermore, by combining digital marketing and cross-cultural strategies, the brand has expanded its global influence. This study also introduces an innovative model for ICH cultural marketing, providing practical guidance for brands looking to incorporate ICH elements and offering new perspectives and methodological support for future ICH marketing research.

KEYWORDS: Intangible Cultural Heritage, ICH Marketing, Brand Equity, Florasis, Digital Marketing, Global Branding

DIFT2025-1
Digital Innovation and Financial Technology Conference 2025 (Round 1)
June 7th, 2025

THE IMPACT OF PERSONALIZED RECOMMENDATIONS ON TOURISM PLATFORMS ON TOURISTS' BEHAVIOURAL INTENTIONS

Hongmei Duan[1] and Ahmad Yahya Dawod[2]
International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand
E-mail: [1]hongmei_d@cmu.ac.th, [2]ahmadyahyadawod.a@cmu.ac.th

ABSTRACT

With the rapid rise of intelligent technologies, personalized recommendation systems (PRS) have become integral to online travel platforms, aiming to enhance user experiences and improve decision-making efficiency by offering tailored content aligned with individual preferences and travel intentions. Despite these advancements, users' responses to personalized recommendations remain inconsistent, prompting critical inquiries into the mechanisms and conditions through which perceived recommendation fit (PRF) influences tourists' behavioural intentions (BI). The study integrates Cognitive Fit Theory, the Technology Acceptance Model (TAM), Information Overload Theory, and Trust Theory to develop a comprehensive conceptual framework. It specifically examines the mediating effects of perceived usefulness (PU), perceived complexity (PCX), and perceived trust (PT) in the relationship between PRF and BI. Additionally, the research investigates how information overload (IO) and privacy concerns (PC) moderate these relationships. A quantitative approach will be administered to active users of online travel platforms. Partial Least Squares Structural Equation Modelling (PLS-SEM) will be utilized to test the hypothesized relationships and validate the proposed conceptual model. The research contributes theoretically by integrating cognitive and emotional factors within a unified analytical model. Practically, it provides actionable insights for optimizing recommendation designs, reducing user resistance, and balancing personalized services with privacy considerations on travel platforms.

KEYWORDS: Personalized Recommendation Fit, Behavioural Intention, Information Overload, Perceived Trust, Privacy Concern