Guest Editorial Preface

Special Issue on Technology Use and Acceptance Behavior of Enterprises and Individuals in the Context of Digital Transformation

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MOTIVATION

The popularization of digital technologies (e.g., Cloud Computing, Internet of Things, Blockchain, and Big Data) has brought a series of changes to economic and social development (Nambisan, 2017). Digital technology is fundamentally changing the management form and organizational boundaries of enterprises (Saghiri & Mirzabeiki, 2021). Enterprises build digital platforms and systems by combining digital technology with enterprise management systems. This provides conditions for enterprises to realize comprehensive digitalization of research and development (R&D), production, marketing, and recruitment (Li et al., 2021; Trașcă et al., 2019). Both practitioners and scholars pay attention to the profound changes and huge impact of digital transformation on the technology use and acceptance behavior of enterprises and individuals. However, in an era full of unknown and uncertain, the influence mechanism of digital transformation on enterprise development and the technology acceptance intention of individuals remains to be further explored. Therefore, this special issue mainly focuses on some important agendas, namely, how digital transformation affects individuals' technology use and acceptable behavior, supply chain resilience, organizational structure, enterprise innovation and development, and enterprise performance.

All the papers in this special issue have been thoroughly double-blind and peer-reviewed. We thank all authors who submitted papers and reviewers who provided constructive comments. We sincerely express our gratitude to Professor Sang-Bing Tsai, the editor-in-chief of the Journal of Organizational and End User Computing (JOEUC), for facilitating this special issue. The 8 papers in this special issue contribute to a more systematic understanding of the impact of digital transformation on enterprises and individuals through a variety of theoretical, methodological, and disciplinary perspectives.

Gao et al. clarifies the relationship between risk control and supply chain resilience in the process of digital transformation to construct a digital transformation supply chain risk (DTSCR) control process system. This study uses the SLRs method to retrieve 469 papers to construct a dimensional system of DTSCR from the theoretical perspective and tests whether DTSCR control helps supply chain resilience through a structural equation model. Finally, based on the case study of the institute of building materials of China Academy of Building Research, this study uses a Bayesian belief network

to construct a risk control system. The research contributes to the existing literature by improving supply chain resilience from a risk perspective.

Shi et al. (2022) provides an overview of academic research within the field of digital transformation. This study conducts a bibliometric analysis using VOSviewer, Harzing's Publish or Perish, and SciMAT to evaluate and visualize the bibliographic materials. The results show that Germany, the United States, and the Russian Federation are the most influential countries in digital transformation research. Additionally, the results suggest that collaboration within this field is still weak, and many research topics are just beginning to emerge. This research provides a summary of most of the key aspects of digital transformation research and helps lay the groundwork to shape the future of this growing field.

Li et al. combines the diffusion of innovation theory and contract theory to build a decision model to solve the challenges faced by individuals in using emerging digital technologies. The decision model is constructed according to the key factors that influence the individual decision process, including technological relative advantages, intrinsic motivation, risk-taking, use-cost, technological complexity, and compatibility. Through the analysis of the cost-utility of each party in Health CrowdSensing technology, the question of whether individuals use the technology is transformed into the question of cost-utility. In the experiments, the validity of the decision model is verified by numerical analysis. The decision model provides a theoretical basis and experimental verification for further research on how an individual decides whether to use technology or not.

Che et al. proposes maximum entropy (MaxEnt) based on a decision-making trial and evaluation laboratory (DEMATEL). DEMATEL can visualize the structure of complex causal relationships. One of the important steps in DEMATEL is normalization. MaxEnt is a universal principle, and it is an effective tool for determining the amount of information that existed in evidence. The greatest contribution of this paper is the use of the MaxEnt principle to determine the normalized direct influence matrix, which allows obtaining the normalized matrix with minimal information loss. This study illustrates emergency management to show the superiority of the proposed method.

Yang et al. evaluates the continuance usage intention on the online healthcare community (OHC) platform for patients and examine the "doctor-OHC-patient" relationship. The results show that perceived critical mass, social identity, and para-social interaction strengthen continuance intention via the social interaction ties. In addition, shared values and trust increase users' willingness to continue usage of OHC. This study provides OHC platform managers with an in-depth understanding of the "doctor-OHC-patient" online social interaction. This study helps hospitals, health policymakers, and related healthcare practitioners to improve the way they use the web for advocacy and guidance.

Liu et al. explores the impact of digital transformation on enterprise development and its mechanisms. This study takes Chinese A-share listed enterprises from 2007 to 2020 as the research sample and constructs a digital transformation index and an enterprise development index. The results show that digital transformation can significantly promote enterprise development. Additionally, digital transformation can benefit enterprise development by alleviating financing constraints, effectively reducing business risks, and driving technological innovation. Finally, China's economic policy uncertainty is an important external factor weakening the role of digital transformation in driving enterprise development.

Wang et al. explores the influence mechanism of digital transformation through the mutual information measures on enterprise development. The authors use the helix model for the interactive relationship transformation among location, industry, vertical industrial linkages, and cooperative partners for the enterprises, which are based on the degree of link among the quadruple variables. It shows the transformation of enterprise structure and innovation and performance by measuring the mutual information. As a result, this paper reveals the transformation of the total performance with emerging technologies.

Wang et al. explores the relationship between digital technology search, competitive advantage, and new venture performance (NVP) in dynamic environments, with a sample of 267 Chinese new

ventures. The results show that the breadth and depth of digital technology search positively affect NVP. Environmental dynamism weakens the positive effect of digital technology search breadth on NVP but strengthens the positive relationship between digital technology search depth and NVP. Moreover, digital technology search breadth affects NVP via differentiated competitive advantage, while digital technology search depth affects NVP through differentiated and cost-leadership competitive advantage.

FUTURE RESEARCH ON TECHNOLOGY USE AND ACCEPTANCE BEHAVIOR OF ENTERPRISES AND INDIVIDUALS IN THE CONTEXT OF DIGITAL TRANSFORMATION

Taken together, the eight papers in this special issue focus on the following two themes. On the one hand, this special issue focuses on the impact of digital transformation on the technology use and acceptance behavior of enterprises and individuals. With the refinement of daily management and the flattening of management structure, enterprises can provide the most basic guarantee for their development through digital transformation and intelligent evolution. To better promote mutual motivation, effective communication, and knowledge sharing among organizational members, the digital transformation of enterprises needs to consider its impact on the technology use and acceptance behavior of enterprises and individuals. On the other hand, the impact of digital transformation on enterprise structure and development has also attracted the attention of this special issue. Digital empowerment creates powerful digital capabilities and can promote large-scale technological innovation. Moreover, digital transformation can have a transformative impact on the economic activities of organizations by supporting radical business model innovation and significant growth in innovation outcomes.

As pointed out in the published paper: *it is necessary to consider the digital transformation, outside sectoral limitations, as an economic development model by identifying all the conceptual components that can directly or indirectly impact digitalization*. We hope that more scholars will focus on digital transformation and conduct groundbreaking research around digital technologies in the future, thus providing valuable insights to drive the use of digital technologies and the digitization of enterprises.

ACKNOWLEDGMENT

This issue articles were supported by the National Social Science Foundation of China (Grant No.21BGL061); The First Batch of New Liberal Arts Research and Reform Practice Projects of the Ministry of Education of China (Grant No. 2021120009); Key Project of Tianjin Philosophy and Social Science Planning (Grant No. TJGL20-026); Major Social Science Project of Tianjin Education Commission (Grant No. 2019JWZD33).

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