Review

Research Framework for Determining How Artificial Intelligence Enables Information Technology Service Management for Business Model Resilience

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Abstract: Information technology service management (ITSM) driven by artificial intelligence (AI), i.e., AITSM, is likely to change business models and enterprise operations substantially, setting off a wave of enterprise AI transformation. Empowerment from AI has brought new vitality and challenges to ITSM capabilities, and enterprises must start thinking about how the capability of AITSM can be reactivated to shape the resilience of business models and meet survival needs in complex and ever-changing environments. To systematically achieve the development of enterprise business model resilience under AITSM, this study combines the actual situation of ITSM and enterprise AI transformation practice and then deconstruct it into three sub-research questions along the primary line of driver identification–model construction–paradigm optimization. We retrieve high-quality literature in the field of information systems from common databases and discuss the topics of AITSM and business model resilience. This study finds that future research should focus on forming an accurate description of the resilience demand of business models in the current era, and thus, better explain the value cocreation process between AITSM and business units. In addition, future research should emphasize the dynamic and strategic nature of business model resilience to study the continuous optimization of business models with the help of AITSM.

Keywords: enterprise artificial intelligence transformation; disruption; information technology service management; business model resilience

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1. Introduction

Artificial intelligence (AI) is radically disrupting the strategy and operation models of enterprises and setting off a wave of enterprise AI transformation in all industries. Considering the exponential growth of information processing capacity, communication bandwidth, and storage capacity, enterprise AI transformation has become an urgent and necessary challenge that must be addressed in the new era. Enterprise AI transformation refers to the profound transformation of business activities, processes, capabilities, and models [1], by fully utilizing the changes and opportunities brought by AI as a strategic priority to help enterprises gain competitive advantages. AI can potentially deliver additional global economic activities of approximately USD 13 trillion by 2030 [2]. Enterprise AI transformation is continuously becoming the core field of business leadership thinking, eliciting attention from the industry and academia.

Business model resilience refers to the capability of an enterprise to maintain its business logic for creating and delivering value [3,4]. Profound economic, social, technological, and environmental changes are becoming part of modern daily business life with an unprecedented scale and pace, constantly challenging the business model of enterprises. The trade confrontation and friction between the great powers and the uncertainty of economic

supervision make continuing to replicate their successful business models difficult for enterprises. The global COVID-19 pandemic is constantly challenging the sustainable operation of the hotel, tourism, retail, transportation, and manufacturing industries. Advances in information technology (IT), such as big data, Internet of things (IoT), and AI, will also create new forms of business models that can effectively and abruptly make traditional business models obsolete. Disruption, a concept that has always existed in enterprise operations, has become particularly prominent in the new era [5,6]. High-frequency and multiform disruptions from the economy, society, technology, and environment have brought severe challenges to the shaping of the resilience of business models in multiple fields, such as competition, value, and innovation. With disruptions from multiple sources and many features, developing and enhancing the resilience of business models have become inevitable problems in enterprise AI transformation.

IT service management (ITSM) can systematically and effectively build value creation channels between business units and information systems (IS) [7]. ITSM is apparently a powerful tool for building business model resilience. However, in the continuous enhancement of informatization investment, the majority of enterprises have underestimated the disruption scale brought by business behavior and technological changes in enterprise AI transformation; moreover, only 8% of enterprises can accomplish enterprise AI transformation in accordance with the established strategies and processes for maintaining economically viable business models [8]. In the face of high-intensity, multidimensional disruptions, traditional IT service management appears powerless. IT services must be able to respond to changing environments and maintain their capability to deliver value in a timely manner while meeting the requirements for stability and resilience [9]. With the extensive development and profound application of AI, AI-enabled ITSM (AITSM), which exhibits the characteristics of augmented analytics, decoupling, platformization, and recombination, is becoming the mainstream ITSM solution [10]. Empowerment from AI has brought new vitality and challenges to ITSM capabilities, and enterprises must start determining how to reactivate the capability of AITSM to shape the resilience of business models and meet survival needs in complex and ever-changing environments.

A business model defines the logic through which enterprises transform their produced goods and services into profit [11]. Consequently, the resilience of a business model should be regarded as a strategic resource; that is, enterprises are required not only to regard business model resilience as a cost to cope with short-term shocks, but they should also promote the shaping of business model resilience as a value-added activity in the long term. Under the impact of disruptions, enterprises may be in a crisis response state when dealing with short-term effects; however, managers should be more aware of their long-term benefits in enterprise reputation, customer retention, competitive advantages, and enduring viability. Similarly, distinguishing between short-term and long-term perspectives is valuable in the practice of AITSM. In the short term, the contribution of AITSM lies in expanding the value of existing applications and processes. In the long term, AITSM should focus more on revolutionary measures. Managers and scholars have clearly realized that the values of digital channels, products, and operations become immediately important when traditional drivers and operations are affected by internal and external disruptions [12]. As an emerging IT management practice, the development of AITSM should not only focus on daily operation requirements, but should also consider long-term actions to ensure flexible digital workplaces, achieve intelligent and automated decision-making tasks, develop digital products, and expand traditional products and services into new channels, and thus, drive and support new business models, improve the resilience of business models, and prepare for sustainable development. Therefore, enterprises should consider AITSM-driven business model resilience strategies under a full-cycle time frame and continue to optimize them.

The current manuscript aims to provide research agenda that proposes examining the role of AITSM in shaping business model resilience. Our work leads to two contributions. First, we systematically review studies on AITSM and business model resilience by inte-

grating current knowledge of organizational resilience, IT business value, and IT-driven business model transformation. Second, we identify three avenues that future research may use as a guide to answering the question of how artificial intelligence enables ITSM for business model resilience. To systematically provide this research agenda, we first highlight our research background of AITSM and business model resilience, then present the research method of our review. We then detain our research findings in three aspects, which leads to three topics for future research. Our future research agendas include the analysis of the transformation drivers of business models, AITSM resources and capabilities, and the optimization process for the business resilience model.

2. Research Background

2.1. Information Technology Service Management Driven by Artificial Intelligence

ITSM refers to a principle that uses widely accepted “good practices” for organizing processes and people around customer-oriented services rather than around tasks related to managing systems and physical infrastructure [13]. ITSM is defined as a routinized type of behavior in the use of assets to provide IT services to a customer organization [7]. ITSM manages the value creation of an entire portfolio of IT services provided by an IS function. However, in a fast-growing, intelligent, and digitizing world, value is idiosyncratic, experiential, and laden with meanings. Disruptions from economic, societal, technological, and environmental contingencies are rapidly emerging. Thus, the value-creation potential of ITSM has been challenged due to its stability-oriented nature, i.e., the lack of capacity to produce a strategic IT innovation and the required agility, making confronting disruptions difficult.

AI is highly suitable for an ITSM strategy because it can help augment real human agents and collect and optimize data [14]. AITSM can efficiently and proactively automate and assist with tasks, actions, and requests at the IT service desk [15], and thus, address the defaults faced by traditional ITSM. AITSM has several advantages. First, its analysis of data and metadata can generate recommendations that accelerate the responses of IT managers to ITSM capabilities and make complex decisions in time. For example, AITSM helps conduct risk assessments. IT managers can use it to predict market changes and find worthwhile investment opportunities by identifying favorable market change signals. Second, AITSM helps IT workers predict and solves most common security incidents. For example, IT workers can use machine learning to track and identify incident trends. This process helps them predict problems, outages, and incidents before they actually occur. Automation will trigger the workflow to check the primary cause of these incidents, ensuring that enterprises can prevent incidents before crises occur. Third, automation functioned by AI helps enrich communication between enterprises and users. It will provide a complementary and consistent experience for consumers. For example, AITSM can be used to create, design, and manage chat flows in an AI chatbot system. Fourth, AITSM assists chief information officers in simplifying the entire decision process. AITSM exhibits high potential in reactivating ITSM by handling the entire digital transformation and streamlining processes [14], and thus, reconstruct business model resilience.

2.2. Business Model Resilience

Business models are vulnerable to various contingencies in the business environment. This condition may unexpectedly render their business logic ineffective. By disrupting or even diminishing the revenue streams of enterprises, environmental contingencies may pose a significant threat to business models. Therefore, evaluating the resilience of business models against such contingencies is essential.

A business model refers to the logic or architecture of the value creation, delivery, and capture mechanisms of a firm [11]. It can be simplified as “what customers want,” “how they want it,” and “how enterprises can organize to mostly meet their needs, get paid for doing so, and make a profit” [16]. In the previous literature, value creation is a central topic of business models [17]. Enterprises always search for solutions to transfer from a crowded

and highly competitive market to an uncrowded and novel market [3], creating the most potential value.

Compared with a long-term “strategy,” a business model embraces a shorter temporal perspective [18]. In a turbulent economy, a business model must adapt in response to external existing and upcoming contingencies engendered by technology-driven innovations. Hence, the resilience of a business model plays an important role by releasing the potential to extend an enterprise’s value creation, and thus, enable the enterprise to adapt better to external uncertainties [3]. By increasing the resilience of their business model, enterprises can secure the continuity of organizational resources and processes through which their organization produces its goods and services and transforms these into value. Moreover, scholars have recognized the innovative nature of business models [11]. By increasing business model resilience, enterprises can innovate creative and novel technologies with business value instead of creating pure technological inventions, enabling them to adapt to a complex and changeable market environment [3].

3. Research Method

3.1. Research Path

Reasonable and answerable research questions are the basis of the literature review [19]. To systematically answer the development of enterprise business model resilience via AITSM, the current study combines ITSM and enterprise AI transformation practice and deconstructs it into three sub-research questions (SRQs) along the primary line of driver identification–model construction–paradigm optimization, as depicted in Figure 1.

Figure 1. Research Path.

SRQ 1: During the digital transformation and post-pandemic period, what is the resilience demand for an enterprise’s business model that is facing internal and external disruptions? To answer this question, researchers must begin by identifying the factors and characteristics of internal and external environment disruptions, analyzing the influencing factors of business model resilience, and evaluating the risk of business model reformation.

The demand level, scope, and degree of business model resilience are based on weighing the necessity and risk of business model reform.

SRQ 2: How does AITSM particularly shape the resilience of an enterprise's business model? To answer this question, we must first compare the resources and capabilities of traditional IT and AI-driven IT services. Then, we should map IT strategic activities with enterprise strategic activities in accordance with IT business alignment theory, and lastly, determine the connection between AITSM and business model resilience.

SRQ 3: How should organizations dynamically develop business model resilience in the new AI era? This question focuses on the intelligent monitoring, dynamic management, and value optimization of business model resilience driven by AITSM. It completes the continuous optimization management of the developed business model resilience.

By improving the understanding of previous research, the three research questions aim to provide clear research ideas for future studies.

3.2. Data Collection

To overcome the weaknesses of a narrative review, we adopt the systematic literature review approach of Denyer and Tranfield [20]. Before conducting a deep search, a pre-search was performed on the basis of the analysis of the three SRQs to determine the selected search string. We select nine commonly used databases in the IS field, namely, ScienceDirect, Emerald, JSTOR, EBSCO, Wiley Online Library, Taylor & Francis, Association for Computing Machinery Digital Library, ProQuest, Institute of Electrical and Electronics Engineers Xplore Digital Library, as the literature retrieval scopes [19,21]. We use a combination of IT/IS, IT service, ITSM, IT infrastructure library (ITIL), AITSM, AI, big data, cloud computing, disruption, resilience, and business model to form our retrieval strings to search the literature from 2016 to 2020 in the aforementioned databases. We obtain 264 papers. To ensure retrieval accuracy, the two researchers separately examine topics and abstracts, obtaining 31 high-quality papers after removing irrelevant and low-quality literature. In the succeeding literature analysis, we analyze and report the research results of the three topics in accordance with the orientation of the research questions. We also identify possible research directions in the future.

4. Research Findings

4.1. Research on Disruption and Organizational Resilience

Resilience generally refers to a system's capability to continue to achieve its goals in the face of challenges [3]. With the intensification of friction between the great powers and the exponential application development of emerging IT, particularly during the sudden outbreak of the COVID-19 pandemic worldwide, the concept of resilience has elicited widespread concern from the industry and academia. With the development of society and technology and the diversity of changeable emergencies in an increasingly complex environment, the study of resilience has expanded into different fields, such as supply chain, community management, tourism, banking, and medical and health care, creating a diverse literature basis [22–26]. Related research has always been a popular topic in the field of management, and research papers have been published in top journals, such as the University of Texas at Dallas with 24 journals (UTD24) and Financial Times with 50 journals (FT50), in recent years [24,27,28]. To improve the understanding of organizational resilience, Table 1 reviews the representative literature on organizational resilience.

Table 1. Representative research on organizational resilience.

References	Methods	Source of Disruption	Main Points about Organizational Resilience
[3]	Case study	Government regulation	Technological advancements, such as IoT, big data, sharing economy, and crowdsourcing, have created new forms of business models that can effectively and abruptly make traditional business models obsolete.
[22]	Literature research	Social-ecological challenges	Organizations require ordinary resilience and acute resilience planning for future events.
[23]	Quantitative research	Global financial crisis	This study argues that strategic social and environmental practices contribute more to organizational resilience than tactical social and environmental practices.
[24]	Case study	Social-ecological challenges	This research explores why and how corporations seek to build community resilience as a strategic response to considerable challenges. It points out that maintaining the community resilience of stakeholders is a strategic ambition of an enterprise.
[27]	Qualitative research	Adversity	Adversity affects and is responded to not by the organization as a whole but by the part of the organization in which it is most directly located. Adversity affects the responses of parts of organizations and the implications for organizational resilience.
[28]	Quantitative research	Social and environmental practices	Organizational resilience is the marginal capability of organizations to anticipate, avoid, and adjust to shocks in their environment. It is assessed through long-term outcomes, including improved financial volatility, sales growth, and survival rates.
[29]	Quantitative research	Supply chain risks and social-ecological environment(namely, the COVID-19 pandemic)	On the basis of disruption uncertainty, the findings indicate the mediating role of supply chain risk management practices and the prominent role they play in fostering supply chain resilience and robustness.
[30]	Quantitative research	Supply chain disruption	This study proposes a more nuanced set of antecedents for developing firm resilience to supply chain disruptions by considering two additional factors: the resource reconfiguration capability and risk management infrastructure of a firm.
[31]	Case study	Destruction of critical infrastructure	This research presents the resilience configuration matrix that gives rise to and establishes four distinct types of organizational configurations: process-based, resourceful, at high risk, and resilience-focused.
[32]	Qualitative research	Adversity	This work elaborates the model by exploring the potential fragility of relational pauses and likely factors that influence the capability and tendency to enact resilience of groups.

As indicated in Table 1, a large number of studies have explored the formation mechanism (References [23,27,30–32]), influence and value (References [3,22,24,28]) of organizational resilience from the qualitative and quantitative perspectives. (1) However, existing research focuses on the demand and value of organizational resilience under single disruption (References [3,23,29–31]) and abstract disruption (References [22,27,28,32]), and a more fine-grained analysis of disruption characteristics is lacking. Notably, decision makers need consistent and complete information regarding disruption to make a quick decision, particularly under highly severe and large-scale disruption. (2) Nearly no research on technology disruption has been conducted in existing studies. This issue is a particularly prominent challenge to enterprises in the digital transformation period. With the transition of organizations into digital enterprises with complex business and technology ecosystems and their ever-changing state, the momentum of digital transformation projects will exceed an organization's adaptive capability, introducing more complex threats. This issue should be the focus of future research. (3) Research on organizational resilience has extended to the capability of organizations to adjust actively under anticipated and unexpected circumstances and gradually developed to a higher strategic level (References [3,23,24]). The demand for organizational resilience should be regarded as a strategic resource or capability and not as a series of temporary measures that respond to disruption. Future research on organizational resilience should focus on the allocation of strategic resources.

4.2. Research on IT Business Value from Different Perspectives

The role of IT in business value is complex [33], and scholars typically regard IT capability as the capability to utilize IT resources and manage the information of the entire organization [34]. The resource-based view (RBV) regards IT capability as a rare, valuable, and appropriate resource that can realize fast and flexible business operations [35,36]. By coordinating with the resources and capabilities of other enterprises, IT capabilities are frequently used as a powerful tool for improving enterprise performance, agility, and competitive advantages [37,38]. Some scholars have investigated the role of IT in an organization from the service-dominant logic, emphasizing that IT service is a routine use behavior of IT assets to provide IT services to customers and organizations, covering all stages of the IT service life cycle [7]. With the development of technology, IT specificity has become increasingly robust. IT has dominated the research areas of enterprise resource planning (ERP), and many scholars have begun studying the process of generating value in enterprises, such as AI, big data, blockchain, and cloud computing [39–42]. Table 2 analyzes the major conclusions of representative literature in the field of IT business value research from the perspectives of resources, services, and technology.

As shown in Table 2, (1) the mainstream resource perspective focuses on the characteristics of the resource side, while the service perspective emphasizes the process of interactive value between service providers and customers. Therefore, studying the business value of IT through service-dominant logic is meaningful. Hence, increased attention can be given to the process of creating value in use. However, IT service research from the perspective of internal service in enterprises is insufficient at present. (2) The value creation process of emerging technologies has gradually become the mainstream of research. However, cross-perspective research is insufficient, particularly in the field of new technology-enabled services or new technologies from the perspective of services. We believe that the perspective of services can more easily align the features of new technology resources with IT customer resources.

4.3. Research on IT-Driven Business Model Transformation

The existing literature typically discusses the business model in digital transformation [43,44], which is actually a rethinking of the business value created by IT. The use of emerging technologies, such as big data, IoT, and AI, has enhanced the openness, availability, and reproducibility of the internal and external resources of enterprises, making information more closely linked to economic activities and more embedded into prod-

ucts, transaction agreements, and social interactions [42,45]. When enterprises shift from the “Internet economy” to the “sharing economy” and the “new age of smart machines, how IT can be used to restructure information flow and redesign the revenue process is strategically important. At present, IT has become an inevitable and effective means for enterprises to transform their business models to cope with disruptions from different sides. Evidently, the change in business value should not be isolated, and organizational culture, organizational structure, leadership support, and employee resistance are all underlying contingency factors in the path of IT-driven organizational transformation that leads to future value [46,47]. In the process of enterprise AI transformation, ambidexterity and conflicting goals, such as new and old IT capabilities, agility and stability, exploitation innovation and exploration innovation, efficiency and security, will continue to emerge, affecting the digital strategy and decision-making of enterprises [9,48]. From existing research, studies on the business model of IT reshaping enterprises in transition include three aspects: value proposition, network, and channel. Table 3 summarizes representative studies in the three aspects.

Table 2. Representative research on IT business value.

View	The Role of IT	Main Points	References
RBV	IT resource and capability	From RBV, IT resources are critical sources of various capabilities. Business value from IT generally results from the combination of IT infrastructure and human resources. In the literature, several typologies of IT competency have been proposed on the basis of the taxonomy of organizational resources. IT competency includes tangible IT, human IT, and intangible IT-enabled resources. Scholars categorize IT competency into inside-out, outside-in, and spanning IT capabilities.	[34,49,50]
Service-based view	IT service (external)	IS research has demonstrated interest in service-dominant logic. Service research in IT management has primarily focused on IT value creation in external customer/provider relationships, such as in IT sourcing, business alliances, and ecosystems. From this perspective, IT emerges as an external professional service resource that helps organizations create competitive advantages.	[51–53]
	IT service (internal)	Some authors have also begun using a service-dominant logic perspective to theorize internal IT service provision/IT value creation in IT function relationships, namely, ITSM, and form a series of mature management frameworks (e.g., ITIL). From this perspective, the value is created in use, which is unique and empirical.	[7,54]
Technology-based view	Traditional ERP	The increasing use of IT in organizations, such as in supply chain management and logistics, is connected to corporate advantages and enhanced competitiveness provided by ERP and warehouse management systems.	[55]
	AI Cloud computing Big Data Block chain	Different technologies have varying technical characteristics and application contexts, bringing new opportunities and challenges to IT value research. On the one hand, some scholars view the capability generation process of cloud computing and big data from the perspective of traditional resources. On the other hand, the augmented analytics of AI, the flexible recombination of cloud computing, and the decentralized digital platforms of a blockchain enable IT to have a unique value creation process.	[39,41,42,56]

From the extant literature, (1) existing research has analyzed the process and mechanism of IT-shaped business models, but only a few studies have focused on the preservation

of business models, i.e., the sustainability of business models. Future research should extend IT-driven value creation to value preservation in the entire process to form a continuous optimization process. (2) Existing studies have explained the process of IT-driven business model transformation in theory, but further empirical studies on management strategies related to value proposition, network, and channel, such as dealing with the practice and optimization of emerging technologies and legacy systems in business model transformation, remain lacking.

Table 3. IT-driven business model transformation research.

Research Topics	The Research Content	References
Value proposition	New digital services in consumer-facing organizations offer novel value propositions, closer consumer relationships, and greater automation of consumer-facing business processes. Organizations can rely on IT to provide services and create novel value propositions. Scholars highlight the potential of destructive innovations created by digital technologies that can significantly alter existing value propositions.	[57,58]
Value network	The use of emerging technologies has redefined the value network. The use of digital technology enables various business units in the original value network to engage in cross-level communication and competition. Stakeholders in the entire value network build a complex competition and cooperation relationship with the goal of creating customer value and make customers participate in value creation.	[6,59]
Value channel	The use of emerging technologies has made coordination across multiple organizations easier, enabling organizations to change their distribution and sales channels flexibly and enhance their additional value by offering digital services.	[60,61]

5. Discussion and Future Research

On the basis of the preceding analysis, scholars have conducted considerable studies on organizational resilience, IT business value, and business model transformation. Research on the resilience construction of a business model driven by AITSM should complement and improve related research based on systematically analyzing the increasingly complex environment of the new era and the disruption characteristics of digital transformation, which are primarily reflected in the following aspects.

(1) Existing research is insufficient to analyze the characteristics of different types of disruptions and cannot form an accurate description of the resilience demand of business models. The transformation drivers are complex, and there are various ways for organizations to respond to the disruptions [62–64]. In the context of a complex environment and digital transformation, determining the necessity and risk of the construction of business models from the internal and external influencing factors of enterprises is necessary.

(2) The role of IT capabilities in shaping organizational resilience at all levels is frequently recognized [65]; however, existing research on IT business value lacks cross-perspective research in service-dominant logic. IT service management logic can better explain the value cocreation process between AITSM and service objects (business units).

(3) Existing research has analyzed the mechanism of technology-driven business model reform [63,65], but studies on business value preservation are lacking. Research on business model resilience driven by AITSM should include the entire process of value creation and preservation and is in the process of dynamic optimization.

Therefore, we believe that in the context of AITSM, future research directions should reflect the following three topics.

5.1. Analysis of Disruptions That Affect Business Model Resilience

Future research can integrate literature analysis, case studies, interviews, and secondary data analysis to identify the characteristics of disruptions that affect business model

resilience. First, studies must obtain a complete and reliable list of disruptions that may affect business model resilience. Future studies must integrate literature reviews, case studies, and second-hand data research methods, analyzing documents from theory and experience, such as academic papers, research reports, and ITSM implementation documents. Future studies can obtain qualitative and semi-qualitative depictions of influencing factors by interviewing chief executive officers and experts and through IT service work orders. Finally, qualitative data can be transformed into quantitative data by using content analysis and the identified research paradigm. Then, the dependence relationship among influencing factors is explored; and the category, time, and function characteristics of disruptions that may affect business model resilience are identified. The specific research route in this topic is depicted in Figure 2.

Figure 2. Research on disruptions affecting business model resilience.

5.2. Analysis of Resources and Capabilities of AITSM for Organizational Resilience

Future research can analyze and develop an AITSM capability model by comparing the differences between AI-driven and traditional IT services in terms of tools, capability domains, capability levels, and targets. First, we can organize the IT service list from the stability orientation and agile orientation on the basis of bimodal IT theory [58], and then conduct an ambidexterity analysis of IT service resources to distinguish traditional IT services from AI-driven IT services. Next, future research can restructure IT processes from a service perspective and analyze the role of the two types of ITSM capabilities. Through configuration analysis, we can identify the two types of ITSM capabilities and determine the capability gap. Future research can also compare the performance of different ITSM in terms of their capability in augmented analytics, decoupling, platformization, and recombination [42]. Future research can search through the ITSM capabilities of typical enterprises and develop an ITSM capability model that is closer to management reality through post-interviews and exchanges. The specific research route is illustrated in Figure 3.

Figure 3. Analysis of resources and abilities of AITSM for organizational resilience.

5.3. Analysis of the Optimization of Business Model Resilience via AITSM

This topic emphasizes the continuous cycle of model optimization and uses the process thought in ITSM to design research. First, the research begins with the continuous evaluation of demand sources, focusing on the qualitative and quantitative studies of influencing factors and identifying the specific categories and importance of influencing factors by circularly implementing the six implementation steps. Then, the two parallel projects of value creation and preservation are continuously evaluated via dynamic simulation. In particular, the input and output of the five steps of value creation and preservation are defined. Finally, we should modify business models through the continuous evaluation of processes related to value creation and preservation. The specific research route is presented in Figure 4.

Figure 4. Research route of resilience continuous optimization of business model driven by AITSM.

6. Conclusions

Recent breakthroughs in computing power have enabled the growth and complexity of AI applications. Building further on the topics around enterprise AI transformation, the current research aims to clarify how AI contributes to ITSM and business model resilience studies. The research limitations of this paper are mainly raised in three aspects. First, there are few concerns on ATISM in prior research, which limits the generalizability of this review. This current study can only look forward to and analyzing the possible application scenarios of AITSM. Second, there are limited studies on the business model resilience driven by emerging technologies. The current study has made a particular expansion on the study of the traditional IT-driven business model. Third, the structure of business model resilience is a long-term process that includes complex conditional variables, while our framework considers some. Future research can investigate synergistic effects between AITSM capabilities and other capabilities within the organizations.

Through a systematic review of the previous literature from 2016 to 2020, we determine that organizations with resilience types can effectively cope with internal and external disruptions. Moreover, the role of ITSM in shaping organizational resilience is complex and varied. This topic can provide effective guidance to practitioners in deciding to adopt AITSM strategies and develop organizational business model resilience. For enterprise senior managers, IT management leaders, and IT service providers, changing their innovation and management ideas is helpful when facing a complex and changeable environment and the endogenous demand of enterprise AI transformation, which allows them to view relevant issues in using AI-enabled IT services and help their enterprises maintain their value creation logic from the perspective of global and dynamic development. Overall, we hope that this review will help future researchers in further exploring the topic of ITSM and business model resilience optimization under the background of AI and its effects on organization operation and society.

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