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Internet-of-Things (IoT): An In-Depth Examination of the Issues and Challenges for the Purpose of Ensuring Long-Term Viability

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Abstract: The primary objective of this research is to identify and analyze all the issues and challenges associated with the Internet-of-Things in the context of business management. The paper develops an exploratory research model to identify and analyze all the issues and challenges associated with the Internet-of-Things in business administration. The researcher gathered all the relevant data and information with the help of a previous literature review recently published on the Internet-of-Things and business management. To compile relevant content on the subject, the researcher used secondary resources such as Internet sites, the official website of organizations that have adopted the Internet-of-Things for management, published research papers, peer-reviewed journals, magazines, periodical articles, and books. This research study will aid researchers and management in developing a unique security framework to minimize and eliminate security and privacy risks and the adoption of the Internet-of-Things using new communication tools and technologies in business management practices. According to the findings of this study, the Internet-of-Things not only assist in business processes and activities but also improve the efficiency and productivity of the available things.

Keywords: Business management, Internet-of-Things, Sustainable development.

I. Introduction

The adoption and implementation of new technology introduce risk and uncertainty into the business environment. For any organization to compete effectively with global competitors in this highly competitive era, intelligent and innovative tools and techniques were required. The Internet-of-Things (IoT) aids in enhancing the capacity and ability of various business activities to achieve predetermined organizational objectives by providing support Loai [1]. When an organization adopts and implements the Internet-of-Things in its operations for the first time, it requires basic hardware and software assets. As a result, it requires a large amount of financial support and technical knowledge about the utilization of all the applications and technologies available. There is a variety of building blocks available to get the process started and ready to be used.

Over the past few years, the Internet-of-Things has had a significant impact on many aspects of human life, including the following areas: residences, educational institutions, workplaces, industrial factories, hospitals, and health-care facilities, as well as agricultural environments, Parvaneh Asghari [2]. As a result of technological advancements and innovation, as well as rapid changes and convergence in the fields of wireless and digital communication systems, micro-electro-mechanical systems, and digital electronics technology, the Internet-of-Things has been introduced. According to Sagar [3], large objects connected to the Internet have improved the organization's overall performance. Because of technological innovation and advancement, the modern generation is faced with a variety of challenges. Because of global competition and new technologies, the Internet-of-Things plays a significant role in environmental protection, social welfare, economic prosperity, and business activities. Every organization strives to reach many customers in the shortest amount of time and at the lowest possible cost; this is only possible when organizations use the Internet and advanced technology Abubaker [4].

As a result, to maintain global competitiveness, every organization must conduct accurate strategic planning and extensive use of advanced technology in all aspects of its operations. The results of these efforts will be beneficial in the long run Ali [5]. As a result, organizations must focus on developing innovative technologies that will help them to become more competitive in the future. The Internet-of-Things is a necessity for the organization in terms of policy formulation. It has created several opportunities that can assist in cost reduction, revenue enhancement, and operational efficiencies.

II. Literature Review

Researchers examine a variety of previous literature in this section of their research. 1st, the researcher looks at other recent publications in the field of study. Many books and articles are available about issues and challenges associated with Internet-of-Things applications in business management. During this

section, the researcher summarises the most important and relevant findings from previous research and explains how this research differs from previous research findings.

According to Falguni Jindal [6], new innovative growing technology aids in advancing science and technology as quickly as possible. The Internet-of-Things makes use of robotics and virtual reality to its advantage. It connects and supports many living and non-living objects, which can then transfer and share information within a community network. It also develops automated processes to assist humans and make their lives more convenient. It is proposed in this research paper that the Internet-of-Things will face several challenges in the future. These include compatibility and long-term viability, security of the technical standards and connectivity, investment in the business, intelligent analysis and actions, and legal challenges, among other things. According to the findings of this study, data security was the most crucial factor in its adaptation.

According to Zainab [7], the significant challenges and issues of the Internet-of-Things environment are discussed in detail, emphasizing the future research directions in this study area. Current developments have brought about the emergence of the Internet-of-Things as a new and innovative technology that incorporates a modern and cutting-edge wireless telecommunications network. The Internet-of-Things can be defined as interoperability and intelligent node for interconnected devices in an infrastructure network. This study aims to identify the issues and challenges associated with the adoption and implementation of a connectivity concept on the Internet-of-Things. The Internet-of-Things environment played a significant role in minimizing the various challenges and their impact on organizational performance, classified into 2 categories: General challenges and Unique challenges.

According to Abubaker Haddud [4], the impact of the adoption and implementation of the Internet-of-Things in the supply chains of a specific organization is investigated. This research reveals the most significant advantages, benefits, and challenges that have been previously documented in the literature. This study aims to determine the impact of the Internet-of-Things on organizational performance and the supply chain in general. The researcher creates a research model that will make use of an online survey to collect data. To accomplish this, the researcher selected 87 respondents as a sample to collect the necessary information for completing the survey. University scholars from various countries across 6 continents were chosen to participate in the survey as respondents. Respondents were authors and co-authors of academic papers published in the Decision Science Institute's annual conference proceedings in 2015 and 2016, respectively. The adoption of the Internet-of-Things could provide some significant benefits to specific organizations and their supply chains, according to the findings of this paper.

A study conducted by Ali Kamali [5] examines the fuzzy analytic network process (FANP), which was used to determine the most effective Internet-of-Things tools and technology challenges in Iran and prioritize the factors mentioned previously. This paper focuses on the approach and challenges that were implemented, including privacy, business-related factors, technological factors, security issues, legal and regulatory challenges, and cultural elements, among other things, in information security. All these factors had an impact on the development of Internet-of-Things technology. According to the findings, security, privacy, and technological challenges were the most critical factors that directly impacted the Internet-of-Things' adoption rate.

An investigation by Parvaneh Asghari [2] into various Internet-of-Things application domains is carried out to determine the various approaches used in its applications. The researcher used the Systematic Literature Review (SLR) method to examine the previous literature in various fields of study. The purpose of this study was to conduct a statistical and analytical analysis of the most recent research techniques used in Internet-of-Things applications. The researchers chose research articles that were published between 2011 and 2018.This study used a technical taxonomy, which revealed the Internet-of-Things applications approaches according to the ones that were selected through the SLR process. The Internet-of-Things applications covered in this study included smart cities, environmental monitoring, health care, commercial, and industrial aspects. There were several disadvantages to different studies, and the weaknesses of the previous paper were discussed in this study. The study also identified potential future research challenges and issues in Internet-of-Things applications.

It has been suggested by Habib [8] that the Internet-of-Things converts the digital world into a physical world. This research study has made human life more accessible, secure, happier, and more comfortable than previously. This paper examines the impact of the Internet-of-Things on the growth of the economy and its various applications. It is proposed in this paper to identify applications that cover all aspects of human life and make connectivity possible from anywhere, at any time, and to anything in the future, and to do so in a cost-effective manner. This research provides some recommendations for implementing this research of connectivity, which opens several new research questions. Finally, this paper examines the various aspects of future Internet-of-Things applications and the research challenges.

According to Sagar Bhat [3], there are several challenges on the Internet-of-Things. This research looked at the future of the Internet, specifically the part that would assist intelligent communicating things to improve life and business operations. This study aims to identify future challenges associated with the Internet-of-Things, which will be comprised of heterogeneously connected devices in the future. According to the findings of this study, Internet-of-Things will become a reality within the next 5 years. It is demonstrated in this study that the Internet-of-Things has a wide range of potential as a powerful technology in everyday easy and fast life. All the opportunities provided by the Internet-of-Things have resulted in numerous different applications based on connectivity and its use. This study provides some guidance for future research into intelligent

applications for more innovative offices, enterprises, factories, and homes and more innovative hospitals, more convenient and easy-to-use transportation systems, among other things.

Khanna [9], a researcher in applications, evaluates the various contributions of researchers in various fields of application. In this research paper, the researcher compiles several research studies relevant to the current state of the Internet-of-Things. This review of the literature was carried out on various aspects of the Internet-of-Things, including applications, technologies, and challenges, among other things. The papers examined various parameters to search for each application in turn. This research also discovered that there are currently existing challenges in this field, which were highlighted. Finally, this study identifies some future research directions in Internet-of-Things that were identified during the research process to prepare novel researchers in this field to search for and improve upon current standings in Internet-of-Things.

According to N. Angelova [10], the Internet-of-Things was a new paradigm that had a significant impact on a wide range of industries and sectors, including agriculture and farming, health; education; and industry, among many others. This study investigates the various changes in the adoption of advanced technology and the Internet-of-Things that have occurred to support work. This research aims to identify the most critical functions that make human life more efficient, easier, and more comfortable. Consumers, governments, and businesses all benefited from incorporating the Internet-of-Things into any business model, regardless of the industry. It identified several challenges and threats, including those related to security, privacy, and standards.

III. The Research Objectives

A. Significant Goal

The primary goal of this research is to identify and analyze all the issues and challenges associated with the Internet-of-Things in the context of corporate management.

Secondary Objectives of the Study

- To ascertain the relationship between the use of the Internet of Things and the performance of business management personnel.
- To provide some recommendations to business managers on how to recognize and define the challenges and issues associated with the Internet-of-Things to ensure the long-term viability of their organizations.

Query for Research

This research aims to identify and analyze all the issues and challenges associated with the Internet-of-Things in the context of business management. In addition, the research uncovers information that helps to answer the following research questions more specifically:

RQ.1. How do business managers deal with the issues and challenges of adopting and implementing the Internet-of-Things?

RQ.2. What are the potential advantages of the Internet-of-Things, as well as their implications for business management?

RQ.3. What strategies do business managers use to overcome all these obstacles to the long-term development of their organizations?

B. Research Design/Data Analysis Process

The paper develops an exploratory research model to identify and analyze all the issues and challenges associated with the Internet-of-Things in business administration. The researcher gathered all the relevant data and information with the help of a previous literature review recently published on the Internet-of-Things and business management. To compile relevant content on the subject, the researcher used secondary resources such as Internet sites, the official website of organizations that have adopted the Internet-of-Things for management, published research papers, peer-review journals, magazines, periodicals articles, and books.

C. The Internet-of-Things as a Concept

The phrase "Internet-of-Things" is comprised of 2 words, namely, the Internet and things. Using the Internet as a connector, we can connect 2 things: living things such as humans and other animals or birds and non-living things such as sensors and other technologies, electronic devices, and other resources used in business activities.

Definition of Internet-of-Things

"An open and comprehensive network of intelligent objects that can self-organize, share information, data, and resources, and react and act in response to situations and changes in their environments."

D. According to Oracle India

"IoT (Internet-of-Things) refers to a network of physical objects (also known as "things") that have been embedded with sensors, software, and other technologies to communicate and exchange data with other devices and systems; over the internet."

IV. Issues and Challenges

When it comes to adopting and implementing the Internet-of-Things to improve the performance of various business

management functions, every business organization faces several issues and challenges. In this section, the researcher identifies the difficulties associated with the Internet-of-Things in business administration. In addition, the new development in the IoT has spawned a slew of issues, challenges, and questions from a legal and regulatory standpoint, among other things.

- *Security*: Because of the insufficient and improper use of the Internet-of-Things, organizations are experiencing significant security issues. The organization required a large amount of data to make various managerial decisions, so management implemented an extensive data analysis system, cloud computing, data warehousing, and data mining, in addition to several new hubs to the web and the systems. If an organization does not prioritize security, it will become a target for hackers and attackers. Many businesses are suffering because of security flaws in their systems. According to the study's findings, researchers discovered that malware was being distributed against their servers by many Internet-of-Things devices used in basic applications, such as closed-circuit cameras and smart home devices.
- The Internet-of-Things provides enormous benefits to its users. However, it also brings with it several issues and challenges that must be addressed. Organizational managers, users, researchers, and security specialists recognize the importance of privacy risks and cyber security Parvaneh Asghari and colleagues [2]. Unfortunately, users may not be aware of or acknowledge the security consequences in some cases. However, the security and privacy of databases are the most important factors to consider when using an internet-based system because if a security breach occurs, it can result in massive data loss and damage.
- *Network Security*: Network security is a powerful mechanism that can be exerted within a network to ensure that the Internet-of-Things operates in a trustworthy manner. Network security is the most critical element. Every organization devotes significant resources to security architecture, which is designed from a communication perspective. This is not suitable for the Internet-of-Things system; therefore, reliable strategies for improving the security of the Internet-of-Things network must be developed.
- *Virtualization*: Virtualization is the ability to share hardware resources across multiple operating systems and is a virtualization capability. Using virtualization technology, it is possible to run multiple operating systems and software programs on the same server, such as applications or services, by creating multiple virtual machines within a physical machine. Every organization faces challenges on the Internet-of-Things environment, divided into 3 categories: the absence of a registry mechanism, the discovery and heterogeneity of resources, and the absence of interaction between services and events on the Internet-of-Things environment.
- *Connectivity*: The connection of multiple devices is one of the most significant challenges of the Internet-of-Things; this will either stop or eliminate the currently existing technologies and the associated structure. The existing technologies are being used to connect, authorize, and authenticate several terminals in a specific network using a client/server architecture and centralized administration. As a result, this model is only valid and appropriate for the current situation. It is not suitable for future requirements because organizations will need to connect billions of devices into a single network. In addition, high speed and new innovative technologies are required by organizations to compete in the global marketplace, and that require many devices to connect many employees, suppliers, distributors, consumers, and other stakeholders to improve performance and generate significant profits. Consequently, proper connectivity with others in a single network is required to function correctly.
- *Compatibility and Longevity*: The concept of the Internet-of-Things is advancing at a rapid pace. It includes a variety of tools and technologies and a focus on a standard that will improve the compatibility and long-term viability of internet-based technologies. However, it will present some difficulties and challenges in establishing additional innovative hardware and software to develop communication with many devices simultaneously. Non-unification of cloud services, unavailability of standardized protocols and operating systems, and variations in firmware among Internet-of-Things tools and technologies are just a few of the issues concerning the Internet-of-Things' compatibility. Furthermore, in the future, various technologies and devices currently in use in organizations will become obsolete or require updating because innovations in the technology environment will cause all these technologies to become obsolete or require updating.
- *Standards*: It collects activities that store, process, and handle information collected from various databases and sensors, collectively referred to as "the Internet-of-Things." Technology conventions are a combination of communication protocols, networks, and data aggregation, all of which help improve the data by increasing the scope, scale, and frequency of data available for investigation. The standard is the most critical element in a data analysis system; by employing the proper standard, every organization can obtain accurate results and information that can be used for various managerial decisions. If the organization does not have proper standards in place for network, protocol, and data aggregation, it will create some difficulties in managing the organization.
- *Privacy*: When it comes to the implementation of the Internet-of-Things in business management, privacy is

a significant challenge. The ability of the Internet-of-Things to function appropriately is dependent on the privacy preferences of users and organizations. So many times, organizations are confronted with issues of privacy, as well as the potential risks and harms that come with the Internet-of-Things and other cutting-edge technological advancements. Because of data loss and privacy concerns, small and medium-sized businesses are delaying adopting and implementing Internet-of-Things technology. As a result, organizations must be aware of and respect users' privacy rights, which are fundamental concepts in ensuring users' education, self-assurance, and confidence in connected devices, the Internet-of-Things, and related services. In addition, many users and the achievement of predetermined goals and outcomes require internet-connected devices to share and exchange data over the internet. As a result, it is a location where hackers can congregate in large numbers. In the event of a data breach and improper use of private information, an organization can be severely disrupted, resulting in significant financial and other risks.

- *Scalability*: Scalability refers to the capacity and ability of a network and system to handle increased traffic or to take advantage of the growing scale of a business environment to achieve higher performance. When it comes to Internet-of-Things, scalability is one of the most significant challenges because it describes the organization's efficiency and ability to deal with higher performance and the organization's long-term growth. The increasing number of internet-connected devices is having an impact on the performance of the network as well as the performance of the organization. As a result, many organizations are now rethinking their existing Internet-of-Things strategies by developing and updating the internet's foundational technologies. However, to achieve global scale, massive additional investments are required.
- *Intuitive Analysis and Decision-Making*: Finally, data collection and analysis are 2 steps that must be completed before an IoT implementation can be considered complete. The process of data analysis is dependent on cognitive models and technological advancements. Specific parameters in the data analysis process cause intelligent actions to be implemented in the context of the Internet-of-Things.

V. Theoretical Implication

This study examines the significant issues and challenges associated with the Internet-of-Things in business management and their implications for business operations and performance. When it comes to perceptions of the Internet-of-Things' impact on business management and the considerations that organizations should consider when adopting and implementing Internet-of-Things solutions, the findings of this study can be considered a valuable source of information. For the implementation of the Internet-of-Things in business management, this study provides fundamental knowledge and theoretical background. Furthermore, it can be used as a starting point for future research that aims to understand basic concepts and aspects related to various benefits resulting from adopting the Internet-of-Things in business operations and management. The findings and results of this research work identify some previously unidentified gaps in the literature regarding the adoption and utilization of the Internet-of-Things for business management.

VI. Managerial and Practical Implications

According to this research, the issues and challenges associated with the Internet-of-Things in business management are being investigated. Specifically, the findings of this study indicate that when the management allows unauthorized and insufficiently protected access to users' private data, it exposes the systems to risks and harmful attacks that compromise the system's security and safety, as well as the personal data's security and safety. As a result, it is necessary to develop an appropriate security system to protect personal information and data, or else users will not be able to use the internet-based system. Because this study provides a thorough understanding of data security and privacy, managers and organizations should adopt and implement Internet-of-Things while taking appropriate security precautions. This research study will aid researchers and management in developing a unique security framework to minimize and eliminate security and privacy risks, as well as the adoption of the Internet-of-Things using new communication tools and technologies, as well as the application of Internet-of-Things technologies in business management practices. A significant aspect of future research that provides practical aspects related to the adoption of Internet-of-Things in business management and its advantages can be derived from this study, which provides fundamental knowledge of the challenges that arise in adopting and implementing Internet-of-Things for various business activities and management functions. According to the findings of this study, various managerial considerations should be given to the selection of Internet-of-Things technology, which has the potential to have technological implications for organizations. To improve the capabilities of management functions, this study provides important and relevant information to managers and future users to define, accept, develop, and promote the Internet-of-Things systems to enhance their capabilities.

TABLE I: SUMMARY OF SOME OF THE RELATED WORKS

The Researcher and The Research Title	The Aim of the Study	Techniques	Solutions	The Results
Falguni Jindal, Rishabh Jamar, Prathamesh Churi (2018), Future and Challenges of Internet-of-Things	Identify the future challenges of Internet-of-Things	Data from Internet-of-Things sensors.	The authors have utilized the sensors data for secure service infrastructure with remote control options.	Security and data privacy will have a significant role in reducing the future challenges of the Internet-of-Things.
Zainab, Hesham A. Ali, Mahmoud M. Badawy (2015), Internet-of-Things (IoT): Definitions, Challenges and Recent Research Directions	Reviewing the main challenges of the Internet-of-Things environment by concentrating on the current research directions in this topic	Wireless telecommunication network.	The researcher has reviewed the main idea to design the structure of the Internet-of-Things that considers three dimensions: independent network, information items, and intelligent applications.	The Internet-of-things environment has various challenges mainly divided into 2 parts, i.e., General challenges and Unique challenges, which was affected the performance of The Internet-of-Things.
Ali Kamali (2018), A Fuzzy Analytic Network Process (FANP) Approach for Prioritizing Internet-of-Things Challenges in Iran	Identify and prioritize the Internet-of-Things technology development challenges in Iran.	Fuzzy analytic network process (FANP).	The researcher utilized the fuzzy analytic network process (FANP), which was applied to identify Iran's essential Internet-of-Things technology development challenges.	Technological, privacy, and security challenges are the crucial factors that affect the Internet-of-Things.
Parvaneh Asghari (2018), Internet-of-Things Applications: A Systematic Review	Categorize analytically and statistically, and analyze the current research techniques on Internet-of-Things applications.	Systematic Literature Review (SLR).	The researcher has used systematic literature review method to identify the advantages and limitations of every study review and identify the future challenges of Internet-of-Things.	This study identifies the various advantages and weaknesses of the previous paper, it also finds out the future research challenges and issues in internet of things applications.
Habib Ur Rehman (2017), Future Applications and Research Challenges of IOT	Examines the impact of the Internet-of-Things on the growth of the economy and the various applications of the Internet-of-Things.	Internet-of-Things applications domains.	The researcher has used the internet of things application to determine the impact of various Internet-of-Things applications on the economy.	Internet-of-Things will give humans comfort and improve the efficiency of things and make them intelligent.
Abubaker Haddud, A, DeSouza, A. R. Khare, A and Lee, H, (2017), Examining Potential Benefits and Challenges Associated with the Internet-of-Things Integration in Supply Chains	Examine the impact of adopting the Internet-of-Things in organizational supply chains to verify potential vital benefits and challenges in the literature.	Online survey and researcher select 87 participants as a sample, The IBM Statistical Package for the Social Sciences (SPSS) version 21 for analysis of data.	The researcher has utilized a valid and reliable research instrument that included 65 scale items.	Internet-of-Things can give significant advantages for achieving competitive advantages for organizations and their supply chains.

VII. Observation and Conclusion

This paper aims to identify and analyze the various issues and challenges associated with the Internet-of-Things in the context of business management. Every organization undergoes changes in business activities and the surrounding environment, such as technological innovation, to improve organizational functions. By utilizing the Internet-of-Things, businesses can reduce future uncertainty while also improving organizational management. The business collected data from sensors, mobile networks, official websites, and consumer databases. Because the business collected essential data from various devices, networks, and data centres in this competitive environment, the organization required a secure and safe service infrastructure that ensured the security and privacy of data. The Internet-of-Things, a combination of the Internet and physical objects, improves business management and business activities and the quality of all human life. According to the findings of this study, the Internet and things assist in business processes and activities. However, they also improve the efficiency and productivity of the available things. Technology and internet-based activities are constantly being updated, and the changing nature of the Internet-of-Things will make it the most powerful tool for improving the capacity of business management to ensure the long-term success of an organization. Researchers have discussed various issues and challenges related to the Internet-of-Things (IoT) in business management in this research study. It also helps to improve overall management functions and activities such as production, supply chain management, customer relationship management, tracking product usage, and monitoring marketing activities and campaigns.

Additionally, the Internet-of-Things improves customer service by enabling real-time communication and focusing on meeting the expectations and needs of consumers. The Internet-of-Things can enable managers to forecast each customer's demand to reduce the challenges of providing consumer services. As a result, managers can improve customer satisfaction by utilizing the Internet-of-Things. According to the findings of this study, the Internet-of-Things can also assist in cost reduction, time savings, and risk avoidance. Marketing managers should make use of the Internet-of-Things to educate consumers. Consumer personal data is collected and stored by businesses using internet-based technology. All this data is used solely for commercial purposes. Businesses should identify the challenges and issues associated with the adoption and implementation of Internet-of-Things tools and technologies in business management to improve the capabilities and efficiencies of their business activities and management. According to the findings of this study, the Internet-of-Things provides a more intelligent way to combine digital and physical things to improve the capabilities of management processes while maintaining a safe environment.

VIII. Recommendation

According to the findings of this study, organizations should identify their existing technological and organizational environments and focus on finding something different to minimize the issues and challenges associated with the adoption and implementation of the Internet-of-Things that should be done differently.

- Organizations should concentrate on overcoming issues and challenges, and risks to reduce the problems associated with adopting and implementing new innovative internet-based technology, such as the Internet-of-Things.
- To make business management more accessible and more effective, developing some standard systems for the Internet-of-Things is necessary. For this purpose, organizations should concentrate on security architectures that meet all the requirements for security and privacy issues in the context of Internet-of-Things.
- Privacy policies for all applications, devices, and protocols that the organization should use should be developed and enforced by the organization.
- With the help of new technology, there should be a requirement for global accountability of legal aspects to minimize privacy and security challenges.
- The organization should emphasize extensive data analysis, personalization, dynamic analysis, and search and exploration.
- Constraints and Prospective Orientation.

This research examines various previous research papers and the researcher's perceptions of the issues and challenges associated with the Internet-of-Things in the context of business organizations. Future research may examine the advantages and drawbacks of Internet-of-Things when adopting and implementing Internet-of-Things within organizations, using primary data sources such as questionnaires, surveys, and observational data. This may aid in the identification of potential benefits and limitations that were not addressed in this study, which is beneficial.

The study's primary limitation was that it examined the issues and challenges associated with the Internet-of-Things in business management but did not explain how organizations should adopt the Internet-of-Things in business management. As a result, future research may investigate this topic.

Various studies should be carried out to examine the security, privacy, and transparency of the technology being used. It will assist the manager, users, and future researchers resolve the various challenges that have arisen because of this research.

The author draws their conclusions based on secondary data, which is limited. It would be preferable to collect primary data, opinions, and viewpoints from experts and users who have the first-hand experience with the challenges and issues associated with the Internet-of-Things in the management of businesses. This paper will also assist practitioners and researchers in understanding the various issues and research challenges associated with the Internet-of-Things in management, which will help develop research trends for the future.

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