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Original Research

Assessment of the status and factors influencing the adoption of cloud computing in knowledge-based companies
Case Study: Kerman Science and Technology Park

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Abstract

Cloud computing is one of the most important topics in knowledge-based companies. Small and medium-sized enterprises with a low budget and few human resources are one of the major groups tending to use cloud computing to benefit from this technology. Several components affect the adoption of cloud in these companies, which should be evaluated before making the decision. This study aimed to identify these components and determine how much each component impacts the adoption of cloud in small and medium-sized companies. Accordingly, based on the diffusion of innovation theory and technology-organization-environment (TOE) framework as well as the previous studies, a conceptual model with twelve components was presented. Data were collected via a questionnaire using the descriptive survey method from 59 knowledge-based companies of Kerman Science and Technology Park. In this study, the "need" factor was selected as the desired state and "use" as the current state; then, the mean of the other components was compared with the mean of these two factors. The results of this study showed that based on the gap between the desired state and the current state, the employees' knowledge of cloud computing, compatibility, complexity, and security and privacy require more attention. Innovation factors, decision makers' knowledge of cloud computing, benefits, and costs have a better position than other components. Finally, factors effective in the compliance of knowledge-based companies of Kerman Science and Technology Park with cloud computing were ranked using the Vikor method. The need factor (information need), decision makers' innovation, and benefits were ranked first to third, respectively, and the complexity factor was ranked last among the indicators. Therefore, identifying the current state (not using cloud computing based on the needs or not matching with cloud) and the desired state (using cloud computing based on the needs or matching with the cloud) in knowledge-based companies, based on the criteria or factors whose usefulness was investigated in this study, can be an important step in joining these companies into the cloud, and thus

bringing the benefits of this new technology to knowledge-based companies.
Keywords: Cloud Computing, Small and Medium-Sized Enterprises, Knowledge-Based Companies, Kerman Science and Technology Park.

Introduction

Every day developments have increasingly digitized our lives and led to rapid data growth. The multidimensional datasets are valuable because of their capacity to discover new knowledge and develop decision-making insights. Analyzing this huge volume of data from multiple sources can help organizations plan for the future and anticipate changing market trends and customer needs (Ullah, Awan & Sikander Hayat Khiyal, 2018). Cloud computing is the evolution of information technology and a dominant

business model for providing information technology resources (Sunyaev, 2020). The global information and communication technology market is progressing and day by day, a significant number of small and medium enterprises use cloud services to improve their business environment, achieve more efficiency, take part in appropriate competition, and increase production (Chatzithanasis & Michalakelis, 2018). It should also be stated that in recent years, cloud computing has been increasingly able to enhance efficiency in organizations (Caldarelli, Ferri & Maffei, 2017) and provide users and organizations with several benefits in terms of capital and operational cost savings (Subramanian & Jeyaraj, 2018)

In recent years, cloud computing technology has grown fastest in information technology (Priya & Saradha, 2020). Because hackers and attackers try to gain access to users' personal and confidential information without permission, applying strong security techniques to protect information has become one of the important concerns (Namasudra, Chakraborty, Majumder & Moparthi, 2020). Therefore, this technology offers a suitable possibility to access resources based on user demand, which leads to excellent performance, appropriate scalability, cost-effectiveness, and optimal protection and maintenance of resources (Krishnadoss & Jacob, 2018).

Today, most of the big data is transferred through the Internet and stored in the cloud computing environment (Namasudra, Devi, Kadry, Sundarasekar & Shanthini., 2020), and one of the reasons for the popularity of cloud computing is its flexibility. Flexibility is a unique feature that allows cloud-based operating systems to remove streaming resources to handle workload changes (Shahidinejad, Ghobaei-Arani & Esmaeili, 2020). Moreover, cloud service providers offer different services and support various software frameworks (Palade, Kazmi & Clarke, 2019). Therefore, cloud computing is a high-performance computing environment with a wide set of independent systems and flexible architecture (Elsherbiny, Eldaydamony, Alrahmawy & Reyad, 2018).

In addition, the prominent features of cloud computing (such as on-demand self-service, resource pooling, broad network access, rapid elasticity, and service scalability) have caused it to be used by attackers to conduct distributed denial-of-service attacks (Agrawal & Tapaswi, 2019). Thus, task scheduling plays an important role in cloud computing and is an important factor in determining its performance (Tong, Chen, Deng Li & Li, 2020). On the other hand, cloud computing has emerged as a new technology that allows users to get the resources they need at any time and place by connecting to the Internet (Kaushik & Gandhi, 2019).

Furthermore, cloud deployment architecture has become a computing model for big data operations, and their scalability, flexibility, and cost-effectiveness have caused this trend. In

such a deployment model, data is no longer physically kept under the direct control of the user, which raises security concerns (Awaysheh, Aladwan, Alazab, Alawadi, Cabaleiro & Pena, 2021).

Considering the importance and necessity of using cloud computing technology, as explained earlier, Kerman Science and Technology Park has 30 independent and 91 growing companies. Therefore, this study sought to investigate these companies' needs and appropriate use of cloud computing technology. Moreover, it aimed to investigate the extent to which the need has been created among these companies and the extent to which the decision-makers of these companies are familiar with this technology. In addition, identifying the effective cases of meeting these needs is one of the goals of this study. Many decision-makers in knowledge-based companies of Science and Technology Park do not have a brief knowledge of cloud computing technology and its uses. However, sometimes, due to the need, they use its simple levels, such as mass computers, without knowing what kind of technology it is. The audience of this study includes information technology decision-makers of companies or their representatives. Therefore, examining the current state of companies regarding the need for this technology and its use by determining measurable components to decide on the transfer of companies from the current state to the desired state will help the decision-makers of the companies to benefit from the advantages of this technology in a better way. Hence, the purpose of this study was to investigate the (current and desired) state of cloud computing in knowledge-based companies of Kerman Science and Technology Park and to rank the factors influencing the compatibility of these companies with cloud technology. For this purpose, using technology-organization-environment and diffusion of innovation theories, decision-makers knowledge of cloud computing; decision-makers innovation status; levels of organizational readiness, need, use, security and privacy, costs, profits or benefits; employees' knowledge of cloud computing; support status of provider companies; and complexity and compatibility of cloud computing technology in knowledge-based companies of Kerman Science and Technology Park were investigated.

Literature review

Kollolu (2020) investigated the infrastructural limitations of cloud computing in a study and showed the development and maturity of cloud computing methods depend on approaches that enable business agility goals. Practical components or even services related to cloud computing have increased access to information resources and the use of related technologies in companies. The results of this study revealed that cloud computing is an example of a consistent, cost-effective, and tested distribution platform for enterprises as well as specific solutions over the Internet. The limitations of using cloud computing are related to budget issues, staff training, design and planning problems, organizational acceptance, and some technical components in setting up this technology.

Halkiopoulos, Giotopoulos, Antonopoulou, and Theodorakopoulos (2020), in a study on e-business and cloud computing services in Greek companies, stated that companies such as Google, Microsoft, Amazon, and others investing heavily in new technological structures are increasingly adapting their services to take advantage of advanced computing capabilities. The results showed that consumers who use services based on the logic of the cloud in their business can better cooperate with blogs, wikis, and social networks (Facebook, Twitter). Flexibility improves a company's ability to change to respond better and faster to the needs and provide

up-to-date and safe services to consumers. It was also found that businesses adopt cloud computing services as the backbone of their business strategy and have a high capacity for sustainability in this way.

Rahman and Iqbal (2019) in a study on public policies for providing cloud computing services to medium and small organizations in Latin America, emphasized that these organizations need to participate in active services to increase productivity and optimize the use of economic data. Cloud computing has made this need commercial and elevated by sharing data on a larger scale so that confidential knowledge in the form of data can be easily shared with the help of large-scale cloud computing. This survey also found that while large companies are using cloud computing for organizational purposes, medium and small organizations are far behind in understanding the relevance of cloud computing in exploiting business operations.

Lynn, Liang, Gourinovitch, Morrison, Fox, and Rosati (2018) stated in a study that the factors influencing decision-making regarding technology adoption in the field of high-performance computing in organizations are unknown. By presenting an integrated model, technology organizations are influenced by 10 factors in their decision to adopt cloud computing in high-performance computing. By understanding the indirect benefits and high-performance computing skills, these organizations can use cloud computing for predictive decision-making.

Friedrich-Baasner, Fischer and Winkelmann (2018) identified and ranked the factors affecting cloud computing in small and medium-sized German organizations, with special attention to security and data handling. It was concluded that trust, privacy, and security were the most important influencing factors.

In his thesis, Amini (2014) also considered eight factors of benefits, compatibility, security, cost, technology readiness, senior manager support, competitive pressure, and support to effectively comply with 22 small and medium-sized Iranian companies with cloud computing.

Alshamaila, Papagiannidis and Li (2013) studied the adoption of cloud computing by 15 small and medium-sized companies in northeast England with a qualitative exploratory study through semi-structured interviews. The factors influencing the adoption of cloud computing technology in these companies included benefits, uncertainty, geographic limitations, compatibility, trialability (trial or interim), size, top management (decision maker) support, prior experience, innovation, industry, market scope, supplier efforts, and external computing support.

Ramezani Tehrani (2013) also addressed the question: What factors affect the decision of small and medium companies to use cloud computing? It has been noted that determining the components that affect the decisions to adapt to the cloud allows us to predict the speed of adaptation. For this purpose, the components that accelerated or prevented cloud adaptation were introduced after comparing the results obtained from cloud-adapted and non-adapted companies in North America.

Investigating the privacy security challenges of cloud computing in e-commerce applications, Mohammadi (2013) proposed a privacy protection plan for cloud service distribution to protect efficient privacy, data integrity, confidentiality, and application in e-commerce.

Fathi Kiadhi (2013) examined the feasibility, opportunities, threats, and requirements of cloud computing implementation in Iranian organizations and industries. The implementation of cloud computing in Iranian organizations and industries was supposed to occur in four stages:

decision-making, preparation, establishment of cloud computing infrastructure, and service delivery and monitoring.

By presenting the cloud computing acceptance model in small and medium-sized companies of the information technology industry, Safari (2013) identified influential factors in the adoption of cloud computing and combined theories related to the acceptance of technological innovation such as technology-organization-environment framework, technology acceptance model, and diffusion of innovation. Academic experts approved the dimensions of the proposed model, and then the approved dimensions were tested in small and medium-sized companies in the information technology industry. Finally, this model was designed for organizations to check their level of readiness to accept cloud computing.

Eskandari (2013) investigated the business values of cloud computing and its services based on the views of information technology experts in Tehran province. The findings showed that all values (except one value) were approved. For cloud computing and infrastructure models as service, platform as service, and software as service, in order of pay-per-use services, reducing the barriers to entry of new services, reducing the procurement and management of information technology infrastructure, and reducing the time to create and acquire value gained the highest ranks.

The literature review revealed a major difference in cloud computing technology infrastructures in organizations of Iran and foreign countries. In foreign countries, the productivity of cloud computing technology has been assessed, while in Iran, due to the newness of cloud computing technology and sometimes the lack of this technology, medium and small organizations are asked to investigate the status or feasibility of this technology. The present study investigated the status and influencing factors of cloud computing acceptance in knowledge-based companies.

Materials and Methods

The main objective of the present study was to investigate the (current and desired) state of using cloud computing in knowledge-based companies of Kerman Science and Technology Park and rank the factors influencing the compatibility of these companies with the cloud through a descriptive survey design. The research population included the knowledge-based companies of Kerman Science and Technology Park. Based on the statistics presented on the website of Kerman Science and Technology Park, there are 30 independent companies and 91 growing companies in this park. Accordingly, the population of this research included 101 companies, and based on Cochran's formula, a sample of 80 companies was selected for this study via a simple random sampling method. The data were collected via a researcher-made questionnaire designed based on the local components proposed by the experts and the criteria used in foreign backgrounds with similar subjects. The collected data were analyzed using SPSS software and the Vikor method.

A criterion or component was needed to investigate the current and desired state of using cloud computing in the knowledge-based companies of Kerman Science and Technology Park. At first, it seemed that components such as facilities and use and needs of companies were sufficient to measure these two states. Still, to make the components more scientific and robust, after studying relatively related cases, it was concluded that using the components of the "Technology-Organization-Environment" theory proposed by Tornatzky and Fleischer (1990) and "Diffusion of Innovation" framework introduced by Rogers (1995) could be very useful to

measure the implementation of new technologies in organizations.

As mentioned previously, in Ramezani Tehrani's (2013) thesis, technology, organization, environment, and diffusion of innovation were used to investigate the implementation of new technologies. After combining these two theories, the components that could be used to make decisions for small and medium companies concerning the implementation of cloud computing were identified. According to Olivirea and Martins (2011), the combination of different theories helps us to understand technology compatibility better. Therefore, to study the adoption of cloud computing in small and medium-sized companies, a new conceptual model was proposed that was born from the combination of the two models above. This model is the same model proposed by Ramezani Tehrani (2013) which has 12 components: 1- External support, 2- Competitive pressure, 3- Decision makers' innovation, 4- Decision makers' knowledge of cloud computing, 5- Employees' knowledge of cloud computing, 6- Organizational readiness, 7- Benefits, 8- Complexity, 9- Compatibility, 10- Security and privacy, 11- Temporariness or trial, and 12- Costs.

These 12 components are divided into four main categories: 1- environmental components, 2- human components, 3- organizational components, and 4- technological components. Environmental components include external support and competitive pressure; organizational components include employees' knowledge and information needs; human components include decision makers' innovation and knowledge of cloud computing; and technology components include benefits, complexity, compatibility, trial, costs, and security and privacy.

Environmental and organizational components and some technology components are related to the theory of technology-organization-environment and human components and some other technology components are related to the diffusion of innovation theory.

In this study, the components of measuring the current state, which is similar to the situation of companies that are not adapted to the cloud, with the desired state, which is similar to the situation of the companies that are adapted to the cloud, included some of the components mentioned by Ramezani Tehrani (2013) based on two theories of technology theory-organization-environment and diffusion of innovation. The identified components included: 1. Decision makers' knowledge of cloud computing, 2. Decision makers' innovation, 3. Organizational readiness, 4. Information need, 5. Use, 6. Security and privacy, 7. Costs, 8. Benefits, 9. Employees' knowledge of cloud computing, 10. Support, 11. Complexity, and 12. Compatibility.

In this review, first, these 12 components were ranked. Then the current and desired states of using cloud computing in knowledge-based companies of Kerman Science and Technology Park were examined based on these 12 components.

Results

Description of the components of using cloud computing

Descriptive statistics of the components of cloud computing usage including mean, median, mode, standard deviation, minimum, and maximum are presented in Table 1.

Table 1
Description of the Components of Using Cloud Computing

Variable	Mean	Median	Mode	SD	Min	Max
Decision makers' knowledge of cloud computing	3.27	3.00	3.00	1.172	1.00	5.00
Decision makers' innovation	4.22	4.33	4.00	0.470	3.00	5.00
Organizational readiness (facilities and budget)	3.39	3.00	3.00	0.974	1.00	5.00
Need (information need)	3.82	3.75	4.00	0.774	2.00	5.00
Use	3.05	3.00	3.00	1.144	1.00	5.00
Security and privacy	3.09	3.00	3.00	1.002	1.00	5.00
Costs	3.72	3.50	3.00	0.882	1.00	5.00
Benefits	3.80	4.00	3.00	0.880	1.00	5.00
Employees' knowledge of cloud computing	2.69	3.00	1.00	1.303	1.00	5.00
Support	3.63	4.00	5.00	1.363	1.00	5.00
Complexity	2.88	3.00	3.00	0.811	1.00	5.00
Compatibility	2.85	3.00	3.00	0.847	1.00	5.00

Interpretation of the components of using cloud computing based on Bazargan's scoring scale

The scoring scale developed by Bazargan was used to describe better and interpret the mean of components of using cloud computing. According to the empirical means and based on Bazargan's scale presented in Table 2, it can be concluded that employees' knowledge of cloud computing, complexity, and compatibility were at a satisfactory level, and decision makers' knowledge of cloud computing, organizational readiness (facilities and budget), use, and security and privacy were at the highly satisfactory level. Furthermore, need (information need), costs, benefits, and support were at a good level, and decision-makers innovation was at the strong level.

Table 2
Abbas Bazargan's Scoring Scale

Very Strong	Strong	Good	Highly satisfactory	satisfactory	Borderline	Unsatisfactory
4.51-4.99	4.01-4.49	3.61-3.99	3.01- 3.59	2.51-2.99	2.01-2.46	Less than 2.00

Investigating the criteria for using cloud computing in knowledge-based companies of Kerman Science and Technology Park

To investigate the status of factors, certain criteria for the current and desired states were introduced and the gap between the current state, desired state, and variable state was examined. The greater the gap between the current and variable states, the greater the need to prioritize that factor to improve it. On the other hand, the larger the gap between the desired state and the

variable state, the greater attention is required to improve the state.

In the present study, "need" was taken as the desired state and "use" as the current state. According to Table 3, employees' knowledge of cloud computing, compatibility, complexity, security, and privacy require more attention. Moreover, decision-makers innovation, benefits, and costs are better than other components.

Table 3
Investigation of Criteria for Using Cloud Computing in Knowledge-Based Companies of Kerman Science and Technology Park

Variable	Gap analysis	
	Desired state	Current state
Decision makers' knowledge of cloud computing	-0.55	0.22
Decision makers' innovation	0.40	1.17
Organizational readiness (facilities and budget)	-0.43	0.34
Security and privacy	-0.73	0.04
Costs	-0.10	0.67
Benefits	-0.02	0.75
Employees' knowledge of cloud computing	-1.13	-0.35
Support	-0.19	0.58
Complexity	-0.94	-0.17
Compatibility	-0.97	-0.20

Ranking the influential factors in the compatibility of knowledge-based companies with the cloud

To rank the influential factors in the compatibility of knowledge-based companies of Kerman Science and Technology Park with the cloud, decision makers' knowledge of cloud computing, decision makers' innovation, organizational readiness (facilities and budget), need (information need), use, security and privacy, costs, benefits, employees' knowledge of cloud computing, support, complexity, and compatibility were evaluated using Vikor method.

According to the current ranking, there are 5 criteria and 12 indicators. To rank the indicators using this method, the following steps were followed:

Step 1. Forming a decision matrix: According to the number of criteria, indicators, and the evaluation of responses with different criteria, the decision matrix was formed.

Step 2. In this step, by standardizing the data, the criteria with different dimensions became dimensionless criteria, and the standard matrix was defined.

Step 3. The weights assigned to each attribute were determined; the sum of the weights must be one.

Step 4. Determining the best and worst available values for each criterion: for each criterion, the best and worst ones were determined among all the options.

Step 5. Calculating utility (S) and regret (R) for each option

Step 6. Calculating the Vikor index (Q) for each option

Step 7. Ranking options based on Vikor index values; the smaller the values of the Vikor index, the higher the rank

According to Table 4, among the influential factors in cloud adoption in knowledge-based companies, the need factor (information need) ranked. First, the factor of decision makers'

innovation ranked second, and benefits ranked third. The complexity factor was ranked last among the indicators.

Table 4
Ranking influential factors in the compatibility of knowledge-based companies with the cloud

Rank	Factor	Vikor index	Rank	Factor	Vikor index
1	Need (information need)	0.815	7	Organizational readiness (facilities and budget)	0.213
2	Decision makers' innovation	0.732	8	Security and privacy	0.201
3	Benefits	0.523	9	Support	0.152
4	Use	0.412	10	Compatibility	0.098
5	Costs	0.386	11	Employees' knowledge of cloud computing	0.075
6	Decision makers' knowledge of cloud computing	0.315	12	Complexity	0.043

Discussion

In this study, 12 components were used to assess the current and desired states. These components were evaluated and examined in two ways to see how much the research population has been affected by these components following cloud computing. According to the empirical means and based on Bazargan's scoring scale, it can be concluded that employees' knowledge of cloud computing, complexity, and compatibility was at a satisfactory level, and decision makers' knowledge of cloud computing, organizational readiness (facilities and budget level), use, and security and privacy were at the highly satisfactory level. Moreover, need (information need), costs, benefits, and support were at a good level, and decision-makers innovation was at the strong level. These results are consistent with those of the study by Halkiopoulos et al. (2020) in terms of the application of cloud computing technology and its benefits concerning the desired effect.

The results obtained from testing the relationships between variables indicated that the factors affecting the compliance of knowledge-based companies of Kerman Science and Technology Park with the cloud space used to assess the current and desired states of cloud computing technology in these companies were not equally effective. The method of ranking the factors influencing the conformity of companies was used to prove this hypothesis. The applications of cloud computing suggest that it is possible to effectively increase the effectiveness and efficiency of companies and support their information activities.

To examine the current and desired states between the variables in this study, the need factor was selected as the desired state and the use factor as the current state. The means of other components were compared with the means of these two components. Based on the gap from the desired state and also on the gap from the current state, employees' knowledge of cloud computing, compatibility, complexity, and security and privacy need more attention, respectively. Besides, decision makers' innovation, benefits, and costs are better than other components. Employees' knowledge is enhanced by providing training programs and organizing workshops. Moreover, the study of employees in this field leads to the development of professional knowledge. Observance of security issues regarding the use of cloud space was mentioned in matters such as the service level agreement. This facilitates communication between the provider and the recipient of information in the cloud. It also provides better

services to identify and define user needs and simplify components. It reduces conflict between users and lowers unrealistic expectations. In addition, it leads to developing a conceptual framework for a better understanding of work processes in this space. This finding aligns with the study's results by Lynn et al. (2018).

In ranking the influential factors in adapting knowledge-based companies to the cloud, the need factor (information need) was ranked first, decision-maker innovation was ranked second, and benefits were ranked third. The complexity factor was ranked last in this group of indicators. In a similar study, Low, Chen & Wu. (2011) introduced eight factors affecting the compliance of small and medium-sized companies with the cloud and regarded need as the most effective factor. Alshamaila et al. (2013) considered decision-makers' innovation and benefits, and Amini (2014) considered the knowledge-based factor of technology decision-makers as the factors influencing the compliance of small and medium-sized companies with the cloud. Therefore, regarding the benefits of this technology, it should be noted that establishing a secure and efficient infrastructure for cloud computing applications is of great importance. Accurate and fast calculations, better data protection, and proper access to information are advantages of this technology.

Thus, after investigating the effectiveness of components by analyzing the current and desired states, as well as ranking the components or influential factors by the Vikor method it was proved that there was a difference in the impact of these factors on companies' compliance with the cloud. In examining the influential factors in the adaptation of knowledge-based companies to the cloud and measuring the current and desired states, the components of need and decision-makers' innovation were more effective than other components in terms of mean and rank differences. In a similar study, Ramezani Tehrani (2013) concluded that decision-makers' innovation was the only effective component of the compliance of small and medium enterprises with the cloud. Mohammadi (2013) proposed an encryption technique for users to use computing services.

Khajeh Hosseini, Greenwood, Smith and Sommerville (2012) proved that implementing systems on the cloud brings lower costs for the organization, and cloud computing technology is suitable for small and medium enterprises but not very suitable for large organizations. Eskandari (2013) also demonstrated in a study that values related to flexibility and time (benefits) have the highest rankings. Optimal application in the network, the basic activity of information storage, efficient and fast access to information, better organization and management of information resources, and measures to prevent possible harms provide suitable conditions for improving information services.

Safari (2013) evaluated small and medium-sized organizations in a Science and Technology Park regarding readiness to use cloud computing. It concluded that these companies are not sufficiently prepared due to several factors, one of which is complexity. Currently, in these companies, the three components of need, decision makers' innovation, and benefits have a good effect on their adaptation to the cloud. However, compatibility, employees' knowledge of cloud computing, and complexity do not significantly affect companies' compliance with the cloud. These results align with the findings of the study by Kollolu (2020) on the problems of this technology. In ranking the influential factors in the adaptation of knowledge-based companies to the cloud, need (information need), decision makers' innovation, benefits, use, costs, decision makers' knowledge of cloud computing, organizational readiness (facilities and budget), security and privacy, support, compatibility,

employees' knowledge of cloud computing, and complexity had the greatest impact on the adaptation of knowledge-based companies to the cloud, respectively.

Conclusion

It is important to consider that using cloud computing technology will also reduce costs as not many equipment and expensive services are required. Moreover, there will be cost savings on cooling systems or heavy energy. In addition, the budget for providing professional and specialized human resources is reduced, which leads to the maintenance and continuous management of the devices. Increasing the speed of data processing and storage, which also affects data retrieval and access, is one of the important advantages of this technology. Besides, its optimal performance will greatly help to update the system. Cloud computing usually also automatically increases bandwidth, thus increasing the reliability of data exchange speed. These benefits and facilities have caused cloud computing technology to be highly regarded by organizations and used in line with their organizational goals and mission.

Suggestions

- By investigating the recent scientific texts, new influential factors for accepting cloud computing in knowledge-based companies should be identified and examined.

- These influential factors need to be investigated in other organizations for cloud computing compliance.

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