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RESEARCH ARTICLE **Open Access**

Investigating the Identification of Technological Business Criteria based on Cloud Computing in Small and Medium-Sized Bompanies Using Fuzzy Delphi Method

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Abstract
This article was conducted with the purpose of identifying the criteria of technological businesses based on cloud computing in small and medium-sized companies using the fuzzy Delphi method. The main concern of this research is to identify the criteria of technological businesses based on cloud computing in small and medium-sized businesses using the fuzzy Delphi method. It depends on mixed research (qualitative-quantitative) and collecting information through the background of previous researches and experts' opinions and the method of gathering information through questionnaires and interviews. Delphi's opinion of experts was taken. In the current research, many factors led to the formation of technological businesses; therefore, it should not be considered a simple phenomenon, and due to the intensity of electronic commerce in the world, the multi-dimensional concept of this phenomenon should be looked at more carefully. Therefore, it is suggested by cooperating with the system and the customer, cloud computing achieves security, privacy, trust and confidence and overcomes the identified challenges, and with its high benefits, it can turn risks into opportunities and achieve effective results.
Keywords: *Business, Technology, Cloud computing, Fuzzy Delphi*

Introduction

The e-commerce environment is changing rapidly, and now various variables such as competition, demand for stability and participation, rapid development of cloud computing, social web, etc. are changing. Cloud computing promises to solve some of these challenges. However, cloud computing has been the latest IT response to these needs (Bello et al., 2021). The business model in cloud computing is a relatively new field and finding the right model for business use can increase the stability and survival of the organization. By knowing the strengths and weaknesses of business models, organizations can choose the most appropriate business model from among the multitude of models presented and use it in economic recession. They expand their work (Fine et al., 2022). The use of cloud services is much more economical than home systems, especially in cases where the processes are data-intensive, and the amount of this economic saving reaches about

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95%. In fact, the cloud allows small IT companies to grow and emerge by providing resources through rent at a price lower than the purchase price. Cloud computing services allow companies to develop their operations without worrying about resource maintenance and only focusing on the core business (Priya et al., 2022).

In developed countries, small and medium enterprises are given a lot of importance because they play an important role in the economy of developed countries. For example, in America, 99.7% of small and medium-sized companies are employer companies, and 45% of the country's taxes are provided and paid by small and medium-sized companies. In the last ten years, the ratio of new jobs created by these companies in the whole world has reached from 60% to 80%, which according to the analysis of global statistics in small and medium companies, this statistic is 13 to 14 times more (Mirfallah Lialestani & khamseh, 2021). Among the large companies, in proportion to their employees, patent production and 41% of the country's specialists are employed in these companies. In the meantime, small and medium-sized technological companies have an essential part in the development, promotion and promotion of new technologies. According to the information and data of the US Bureau of Statistics, there are about half a million small and medium technological companies and 5 million people have been employed in these companies (Ahmad et al., 2022). Small and medium technological companies play a significant role in national and international economies (Kurochkina et al., 2019). This is due to the activity in the field of new technologies and their ability and capability in product or service innovation and rapid commercialization. In industries with new technologies, the concentration of companies has reduced the growth rate and technological advances have led to the production of products that are slightly different from each other, because small and medium-sized technological companies are in a more complex environment have activities that require the use of more complex marketing measures, however, due to their low ability in marketing and understanding the needs and desires of customers, the majority of investments in these companies are wasted gone and products and services rarely attract customers. In fact, managers in these companies believe that having the latest technology and the most up-to-date product or service is not enough to have high sales (Bagale et al., 2021). It should be noted that although technology development is important in any business, marketing is also necessary to be able to turn technological advances into a competitive advantage (Vu and Nguyen, 2021).

Due to the high influence of these companies and their effective role in the economy, small and medium-sized companies are given great importance in developed countries, and this category of commercial enterprises or businesses plays a central role in the economic development of countries and about 80% of the world's economic growth is related to small and medium-sized companies. However, a larger percentage of small businesses face destruction and failure in the early years of establishment. In the meantime, in the field of superior technologies, due to high dependence on changing technology and the need for high initial capital, companies or businesses are facing a more difficult situation (Darvish et al., 2023). Ensuring the long-term survival of the organization is a challenge in today's technological business world. The ability to provide an innovative product or service to the market is a fundamental and strategic differentiator and a tool for superiority over competitors (Holzer et al., 2021). Considering the essential and central role of small and medium technological companies in the

development of knowledge-based economy and the high failure rate of economic businesses, it is important to identify the effective factors in their success (Manzoor et al., 2021). Recent studies show that 75% of senior information managers of organizations have reported that they will need to use cloud computing in the near future. Today, small and medium business companies have found that simply by using the cloud, they can benefit from quick access to the best business programs or the effective increase of infrastructure resources, for example, at a negligible cost. Cloud computing has recently been proposed as a new paradigm for hosting and providing services through the Internet (Yaseen et al., 2022).

Moving towards cloud computing is a must because if the country does not own cloud services, it must place its content and information on a cloud that belongs to a foreigner, which is against national security. Currently, the global movement towards the expansion of these services has a high speed.

On the other hand, Iran's ranking in doing business was 132nd in 2014, 119th in 2016, and ranked 117th out of 191 countries in 2017, with two downgrades.

Finally, by examining the researches about cloud computing, this important gap was found that the issue of cloud computing has not been taken into consideration in Iran.

At the same time that past studies and research consider the role of small and medium-sized technological businesses to be important in the development of the economy and the provision of products, the science of cloud computing considers it very limited and affected by many factors. However, cloud computing is associated with particular problems in high-tech start-up businesses. In this type of business, the focus is more on product production, these companies are justified by the new market that has not yet been formed, the uncertain applications of technology, and often the urgent need for internationalization. Therefore, according to the topics raised, the main question in this study is: How to identify the criteria of technological businesses based on cloud computing in small and medium-sized companies using fuzzy Delphi method?

Theorical Framework, Cloud computing

Cloud computing is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing power, without direct active management by the user large clouds often have functions distributed over multiple locations, each of which is a data center. Cloud computing relies on sharing of resources to achieve coherence and typically uses a pay-as-you-go model, which can help in reducing capital expenses but may also lead to unexpected operating expenses for users (Nafei et al., 2022). NIST (National Institute of Technology and Standards) defines cloud computing as follows: Cloud computing is a model for convenient, configurable on-demand access to a shared pool of computing resources (eg, networks, servers, storage, applications, and services) that are quickly provisioned and released with minimal management effort or server interaction. Cloud computing offers many opportunities and helps companies improve their business and use technology more efficiently. Some define cloud computing as an IT service model. Computing services (hardware and software) are delivered to customers on the network according to demand and in a self-service manner (Ansari & Kateb Damghani, 2022).

Cloud computing service models

The cloud uses four types of access: public, private, hybrid and social. Service models or services are reference models that are considered the basis of cloud computing. These

models are divided into the following three basic service models:

- ❖ Software Cloud as a Service (SaaS): Applications of cloud service providers or cloud service providers (CSP) running on cloud infrastructure are accessible from user devices through a thin user interface such as a web browser;
- ❖ Cloud Platform as a Service (PaaS): The user develops the cloud infrastructure or acquires built applications using programming languages and tools supported by the provider;
- ❖ Cloud Infrastructure as a Service (IaaS): Information Security Policy (CSP) provides storage, networking, and other underlying computing resources to the user on which the user is able to deploy and run optional software, including operating systems and applications (Wang, 2022).

Benefits of cloud computing in small businesses

By using cloud services, small businesses can take advantage of opportunities that allow them to compete in an innovative information and communication technology environment, and provide them with a level playing field for business success to use.

The useful features of cloud computing for small businesses are as follows:

- ➢ Self-service on demand;
- ➢ Wide access to the network;
- ➢ Integration of resources;
- ➢ Elasticity or fast elasticity;
- ➢ Metered service;
- ➢ Low costs (low-cost and up-to-date software solutions);
- ➢ Move data smoothly and without borders;
- ➢ Unlimited data storage;
- ➢ Access to data from anywhere and anytime means portability and flexibility (more time and effort is spent on business strategies and solutions);
- ➢ High level of security protocol that guarantees the protection of business and data;
- ➢ Improving business performance and simple data management (Haucap et al., 2022)

Small businesses and cloud computing

Small businesses (SMEs) ensure economic growth in Europe. According to statistics published in the European Union, in 2013, 21.6 million small businesses employed 88.8 million people and generated 3.666 trillion in added value. The latest financial crisis and recession hit SMEs in the EU28 hard, and economic conditions remain tough (Bajdor, 2022). Recent studies focus on the potential benefits of cloud computing in small businesses, in terms of enhancing business growth and encouraging entrepreneurial practices at all levels. However, market trends show that European small businesses are not getting the best cost-effective solutions offered by cloud computing (Karagozlu et al., 2020). Smaller businesses can avoid large investments in hardware and software, easier market entry due to cost effectiveness, and integrated cloud computing services. Universities benefit greatly from cloud computing because their storage capacity and economic viability ensure more efficient research management techniques in all fields (business, medical, scientific, etc.). Therefore, cloud computing in small businesses is recognized as an optimal solution for innovation-oriented alliance between universities and companies (Adane, 2022).

Limitations of cloud computing

Like any technology, cloud computing also has limitations or issues. One of the main issues is the reliability and security of data and their availability. Especially when the cloud server has an outage. Many companies are facing problems regarding the lack of control of information and communication technology (ICT) systems and the impact of content

security policy (CSP) on them (Tavakkol et al., 2023). These issues hinder the migration of small business decisions to the cloud computing environment. In addition, other factors also influence decision-making, among which the following can be mentioned:

- ✓ Lack of understanding of the infrastructure, costs and fit with the needs and scenarios of different companies from different business environments;
- ✓ ICT skill levels of users, managers and entrepreneurs;
- ✓ Readiness of small businesses to adopt cloud computing from a less time business approach (Talebahmadi & Farahmand, 2022).

-The results of Huang et al., (2023) showed that the indirect revocation and binary tree-based data structure are introduced to achieve efficient user revocation and dynamic management of user groups. At the same time, in order to further improve the efficiency of the scheme and realize file sharing across enterprises, the scheme also allows multiple authorities to jointly set up system parameters and manage distribute keys. Furthermore, by re-randomizing the user's private key and update key, we achieve decryption key exposure resistance (DKER) in the scheme. We provide a formal security model and a series of security experiments, which show that our scheme is secure under chosen-plaintext attacks. Experimental simulations and evaluation analyses demonstrate the high efficiency and practicality of our scheme

-The results of Ardehi et al., (2023) dedicated the Collection and Analysis of Big Data affects the Simulation and Automatic Robots. These factors affect horizontally and vertically integration systems and thus lead to the Internet of Industrial Things, Augmented Reality and Cyber Security. Further, through the Cloud Computing system, Additive Manufacturing is affected and this Additive Manufacturing leads to Sustainable Development.

-The results of Tank & Gandhi (2023) showed that the merger of cloud computing with smart devices brings us into a new version of computing. Presently, Edge computing and fog computing techniques are flattering the world after cloud computing, which has all matured with the limitations in cloud. The objective of this study is to examine the current trends and concepts in detail, also, to provide a comparative study for the fog computing, edge computing, and cloud computing. This study includes few features, application, advantages as well as disadvantages, and the contrast between these technologies and how every one of them is effective for different applications.

-The results of Zangian et al., (2023) showed that how the relationship and engagement between the components and dimensions of digital business strategy. The results of this study suggest that among the identified factors, the field of digital business strategy, scalability of digital business strategy, speed of digital business strategy, and resources of digital business strategy. Considering factors in digital business strategy, recommendations are made to improve these dimensions in international companies.

-The results of Mahmoudian et al., (2023) showed that the multi-objective linear programming scheduling algorithm is also proposed to execute workloads effectively on available resources. We perform the evaluation with three kinds of real scientific workflows. The experimental results show that the proposed approach efficiently reduces execution average cost, and response time along with higher resource utilization in comparison with its counterparts.

-The results of Yang et al., (2020) showed that the aiming at the problem of computing and communication resources allocation in the cloud-edge collaboration, a game-theory-based dynamic resource allocation model is

introduced. Finally, an e-government self-service system based on the cloud-edge collaboration is designed and implemented. The cloud side is a cloud computing server, and the edge side are the self-service terminals integrating various edge computing devices with Artificial Intelligence (AI) embedded. The experimental results show that the designed system combines the advantages of cloud computing and edge computing, and provides a better user experience with lower processing latency, larger bandwidth, and more concurrent tasks. Meanwhile, the findings show that the evolutionary equilibrium and the Nash equilibrium are the optimal solutions, respectively.

-The results of Ataie (2022) showed that the model includes several real aspects of such environments, such as request queueing, virtual machine (VM) provisioning, VM servicing, and powering on and off of physical machines (PMs). Based on the presented cluster model, a hybrid monolithic model is proposed in the second step that encompasses requests arrival and load balancing component of the cloud. The proposed monolithic model supports heterogeneity of requests in terms of the arrival process and the number and execution time of requested VMs. To demonstrate the applicability of the hybrid monolithic model, several load balancing algorithms that can be applied to such a model are introduced and evaluated based on different performance metrics of interest.

-The results of Eslami Mehdiabadi et al., (2020) showed that the most important criterion in the capabilities cluster of cloud computing in the development of electronic communications services is "saving information in electronic communications services" equal to 0.123. Finally, path analysis between "development of electronic communications services" and " capabilities of cloud computing" according to the confirmatory factor of analysis loads is equal to 0.566, and between "development of electronic communications services" and "cloud computing advantage" is equal to 0.521. Thus, based on the findings, it can be said that cloud computing technology with the development of electronic communications services of steel industries of Yazd has a positive relationship and effectiveness.

The innovation of this article is explained as follows:

- The most important aspects of cloud computing in business;
- Examining the impact of cloud computing in technological businesses;
- Identification and ranking of the basic variables on the use of cloud computing in technological businesses.

Methodology

The classic Delphi method has always been associated with low convergence of experts' opinions, high implementation cost, and the possibility of excluding some people's opinions. Therefore, the fuzzy Delphi method was proposed in the 1990s to solve these problems in order to cover the obstacles related to imprecision and clarity by providing a flexible framework. Also, because the decisions taken by the experts are based on their mentality, it is better to display the data with fuzzy numbers instead of definite numbers. In this research, the method proposed by Su and Yang was used. They used the triangular fuzzy number to include experts' opinions and create a fuzzy Delphi method. In this way, the maximum and minimum values of experts' opinions were considered as boundary points of fuzzy triangular numbers, and the geometric mean was used as the degree of membership of fuzzy triangular numbers and to remove the effect of boundary points.

This study is an analytical-exploratory research, which is considered part of fundamental research from the perspective of the goal, and from the strategic perspective of

research implementation, the case study strategy has been used for the basic frameworks of technological businesses in the context of cloud computing, the method of conducting mixed research (is qualitative-quantitative), in this direction, in the qualitative phase of exploratory studies in order to strengthen the research method and better conduct the research of criteria and sub-criteria from the background of past research and interviews with experts and researchers through review and content analysis to collect relevant sources and in During this process, the basic frameworks for identifying the criteria of Iran's technological businesses are carried out (phase one). In the quantitative phase, the findings of the first phase were scored in the form of a fuzzy Delphi questionnaire from an optimistic and pessimistic point of view, and its target community (The decision team) available experts related to the subject with the characteristics of a master's degree and a doctorate with at least ten years of work experience and having executive experience in the related field of small and medium-sized companies in Iran, including 28 people through the information available on the website of the Supreme Council Informatics and computer trade union system were identified.

Findings

A) Key factors (Motivators)

The following table is obtained from the amount of scores between 1 and 10 for pessimistic and optimistic according to the opinion of 40 experts regarding the degree of importance of the criteria and indicators of key factors.

Table 1

Key factors: selection of the most appropriate criterion based on the fuzzy Delphi method

Dimensions	Pessimistic amount		Optimistic amount		Geometric mean		Significant amount
	Min	Max	Min	Max	I_m^i	U_m^i	
Technological factors	4	8	8	10	6.04	9.56	9.48
Human and cultural factors	4	8	8	10	5.44	9.58	8.94
Technical and specialized factors	3	8	8	10	5.75	8.77	10.54
Economic factors	2	8	8	10	4.98	8.56	10.48
Discovering and creating technology	3	8	7	10	4.89	9.08	9.46
Technology choice	3	8	7	9	5.70	8.37	10.67

Considering that the threshold value obtained from the mean of the significant value column is 7.42, so among the 12 existing dimensions, dimensions, technological factors, human and cultural factors, technical and specialized factors, economic factors, discovery and creation of technology , the choice of technology that is more than the significant number remains, and organizational factors, legal factors, methods of financial attraction, human resource attraction and organization, environmental and industrial analysis, introducing the plan and calculating the indicators of the plan compared to other dimensions of its significance are less than the threshold of 7.42.

Question 2: What are the basic indicators of cloud computing in technology businesses?

Table 2
Indicators: choosing the most appropriate criteria based on the fuzzy Delphi method

Dimensions	Pessimistic amount		Optimistic amount		Geometric mean		Significant amount
	Min	Max	Min	Max	I_m^i	U_m^i	
Responsibility and accountability	4	8	8	10	5.59	8.77	10.30
Agility	4	8	8	10	5.16	8.97	9.68
Performance	3	8	8	10	4.89	9.07	9.36
Recoverability	2	8	7	9	5.79	8.27	10.88
Proportion	3	8	7	9	5.70	8.37	10.67
Starting a technological business	2	8	8	10	4.99	8.97	10.33
Strategic restructuring of an organization	3	8	8	10	5.28	8.58	10.96

Considering that the threshold value obtained from the mean of the significant value column is 8.42, so among the 12 existing dimensions, responsibility and accountability, agility, efficiency, marketing capability, suitability, technological business startup, strategic restructuring the organization remains and the scalability, acceptance, definition of tasks and responsibilities of the elements presented and selection of organization structures and coordinated implementation of activities, the start of the organizations are less than the threshold of 8.42 compared to other meaningful dimensions.

Question 3: What are the important challenges of cloud computing in technological business?

Table 3
Important challenges of cloud computing in technological business

Dimensions	Pessimistic amount		Optimistic amount		Geometric mean		Significant amount
	Min	Max	Min	Max	I_m^i	U_m^i	
Reliability and trust	3	8	7	10	5.88	8.55	8.66
Interoperability	4	8	8	10	6.04	9.56	9.48
Security and privacy	4	8	8	10	5.68	9.28	9.20
Estimating a positive outlook for the future	4	9	7	9	5.79	7.96	12.96
Leading in the use of technology	4	9	7	9	5.72	7.96	12.85
Business process reengineering	5	6	5	8	5.19	6.16	3.10

Considering that the threshold value obtained from the mean value of the significant column is 8.76, from the 9 available dimensions, dimensions of reliability and trust, interoperability, security and privacy, estimating a positive outlook for the future, leading in The use of technology that is more than the significant value remains, and portability, unwillingness to reach new markets, inability to achieve new technology, business process reengineering compared to other dimensions have a significant value of less than 76. 8/ are deleted.

Question 4: What are the important advantages of cloud computing and technological business?

Table 4
Important advantages of cloud computing and technological business

Dimensions	Pessimistic amount		Optimistic amount		Geometric mean		Significant amount
	Min	Max	Min	Max	I_m^i	U_m^i	
Saving costs	3	8	8	10	4.89	9.07	9.36
Data backup services	2	4	4	6	3.52	5.56	3.76
Automatic update	3	8	8	10	5.46	8.77	10.13
Execution speed	2	4	4	9	3.07	6.06	2.27
Accessibility from anywhere	3	8	7	9	5.79	8.27	10.88
Learning to manage the acquisition and control of technological businesses	3	8	7	9	5.83	8.06	11.12
Marketing innovation	2	8	7	9	5.30	8.67	10.94

Considering that the threshold value obtained from the mean of the significant column is 7.97, from the existing 13 dimensions, the dimensions of cost savings, automatic updating, multi-tenancy, accessibility from any place, acquisition training and acquisition control. And technological work, innovation in marketing, which is more than the meaningful amount, and reducing the workload in the IT sector, executive speed, training in technical business management, training in financial and accounting skills, training in management development, control and marketing, New values based on technology compared to other dimensions have a significant value of less than 7.97 and are removed.

Question 5: What are the important features of cloud computing in technological businesses?

Table 5
Important features of cloud computing in technological businesses

Dimensions	Pessimistic amount		Optimistic amount		Geometric mean		Significant amount
	Min	Max	Min	Max	I_m^i	U_m^i	
Self-service and on-demand	3	8	8	10	4.89	9.07	9.36
Aggregate resources	3	8	8	10	5.59	8.77	10.30
Fast flexibility	3	8	8	10	5.16	8.97	9.68
Consulting in the field of technological business	3	8	7	9	5.92	7.96	11.36

Dimensions	Pessimistic amount		Optimistic amount		Geometric mean		Significant amount
	Min	Max	Min	Max	I_m^i	U_m^i	
Consulting for preparation of marketing plans	3	8	8	10	5.39	8.63	10.09

Considering that the threshold value obtained from the mean value of the significance column is 8.85, from the existing 8 dimensions, self-service and on-demand, pooling of resources, quick flexibility, network access of economic and marketing consulting, which are more It remains significant, and controlled and measured services, economic and marketing consulting, job analysis and human resource planning, which have a significant value of less than 8.85, are eliminated.

Question 6: *What are the basic risks of cloud computing in technological* businesses?

Table 6

Basic risks of cloud computing in technological businesses

Dimensions	Pessimistic amount		Optimistic amount		Geometric mean		Significant amount
	Min	Max	Min	Max	I_m^i	U_m^i	
Technological risks	4	8	8	10	5.68	9.58	9.14
Possible risks	2	5	6	10	3.21	8.62	3.90
Operational risks	3	8	7	10	5.59	8.55	
Business relationships, type of marketing and customer preferences	3	8	7	9	5.93	7.96	8.66
The level of work culture and marketing	2	8	8	10	5.28	8.59	11.36
Strategic restructuring	3	8	7	9	5.93	8.11	11.24
Identify opportunities and threats of the organization	3	9	7	9	5.80	7.96	13.04
The degree of risk taking of businesses	2	8	7	10	5.30	8.72	10.22

Considering that the threshold value obtained from the mean value of the significance column is 9.14, from the 13 existing dimensions, technological risks, operational risks of business relations, marketing type and customer tastes, process risks, the level of work culture and Marketing, strategic restructuring, identification of opportunities and threats of the organization, the degree of risk-taking of businesses, which remains more than a significant amount, and possible risks, cultural, economic, physical, commercial risks, the physical conditions of the country in terms of resources Natural, geographic, population, price, energy and telecommunication infrastructures, which have a significant value of less than 9.14, are removed.

Table 7
The results of the normality test of the research components

Subcomponents	The Main components	Sig amount	K-S statistics	The state of being normal
Key factors	Technology factors	1.340	0.053	Normal
	Human and cultural factors	1.230	0.105	Normal
	Technical and specialized factors	1.254	0.077	Normal
	Economic factors	1.334	0.056	Normal
	Discovering and creating technology	1.002	0.248	Normal
	Technology choice	1.155	0.138	Normal
Indicators		0.875	0.412	Normal
	Responsibility and accountability	1.227	0.081	Normal
	Agility	1.220	0.118	Normal
	Performance	1.352	0.054	Normal
	Marketing ability	0.989	0.251	Normal
	Cognition	1.321	0.063	Normal
	Starting a technological business	1.945	0.327	Normal
	Strategic restructuring	2.236	0.254	Normal
Challenges	Reliability and trust	0.251	0.989	Normal
	Interoperability	0.063	1.321	Normal
	Security and privacy	0.327	1.945	Normal
	Estimating Mapbet's outlook for the future	0.254	2.236	Normal
	Leading in the use of technology	0.248	3.111	Normal
Advantages	Saving costs	0.001	3.360	Normal
	Automatic update	0.059	3.512	Normal
	Multi-tenancy	0.0211	1.998	Normal
	Accessibility from anywhere	0.115	2.749	Normal
	Training and gaining control of technological businesses	0.026	2.521	Normal
	Marketing innovation	0.0218	2.946	Normal
Features	Self-service and on-demand	0.112	3.403	Normal
	Aggregate resources	0.054	1.785	Normal
	Fast flexibility	0.245	1.936	Normal
	Network access	0.105	1.599	Normal
	Economic and marketing consulting	0.0068	2.812	Normal
	Consulting for preparation of marketing plans	0.312	1.786	Normal
Risks	Technological risks	2.521	0.175	Normal
	Operational risks	2.946	0.055	Normal
	Business relationships, type of marketing and customer preferences	3.404	0.042	Normal
	Process risks	1.785	0.048	Normal
	The level of work culture and marketing	1.936	0.599	Normal
	Strategic restructuring	1.599	0.359	Normal
	Identify opportunities and extensions of the organization	2.812	0.601	Normal
	The degree of risk taking of businesses	1.786	0.042	Normal

In order to check the normality of the data distribution, the Kolmogorov–Smirnov (K-S) test was used. This test is used to check the claim made regarding the data distribution of a quantitative variable. If the significance level is greater than 0.05, the normality is confirmed, otherwise, the non-normality of the research components is confirmed.

Conclusion

In this article, the results of the research have been done to identify and rank the basic variables on the use of computing in technological businesses. For this purpose, effective variables were extracted from various sources and from the opinions and suggestions of experts and were given to the decision team, each of the factors was scored, finally the questions of this research were answered and the basic variables on the use of cloud computing in Technological business was carried out as follows.

Among the achievements of this research, it is possible to mention the presentation of seven basic and effective variables on the use of cloud computing in technological businesses, and according to the results of the hierarchical analysis, the basic drivers were selected as the most important variables, and the other variables were selected in order of index. Challenges, benefits, features and risks were prioritized next.

Since the basic drivers of using cloud computing in technological businesses are strengthened by factors such as technological factors, human and cultural factors, technical and specialized factors, and economic factors, and it can be helpful in using this new technology, On the other hand, the basic indicators in using cloud computing with the help of system agility are facilitated by customer service, strategy and reduction of disruptions, and through the fit between the capabilities of the new service with the actual features required by the customer, relationships are established and the feedback of that efficiency for The new system brings, and in the same way, the ability to recover and be responsible and accountable for the indicator is not far from expected, it should be pointed out that the use of cloud computing is not without challenges, but this system must cooperate with the system and the customer, security and implement privacy, trust and confidence and overcome the identified challenges, and with many advantages and features, cloud computing can turn risks into opportunities, and achieve many results created technological works.

Suggestions

- Formation of specialized working groups in companies in order to carry out expert work, formulate and present executive proposals in the field of cloud computing;
- Emphasizing meritocracy, innovation and futurism in companies and making the results tangible for everyone;
- Creating the structure and organizations of Fava in accordance with the processes of international standards in companies;
- Drawing a roadmap for using cloud computing in companies;
- All-round support of the government and the parliament for the economic rights of companies by drafting and promulgating appropriate laws;
- Compilation and implementation of appropriate programs for empowering human resources in relation to related technologies;
- Creating an insight and culture of using cloud computing technology with training and various other methods;
- Aligning the proposed laws in the field of cloud computing with the needs of companies.

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