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Conference Paper

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Provided in Cooperation with:

The Research Institute for Agriculture Economy and Rural Development (ICEADR), Bucharest

Suggested Citation: Sipică, Alexandru; Furduescu, Bogdan (2016) : Implementation risk analysis of cloud computing: Technologies at farm level, In: Agrarian Economy and Rural Development - Realities and Perspectives for Romania. 7th Edition of the International Symposium, November 2016, Bucharest, The Research Institute for Agricultural Economy and Rural Development (ICEADR), Bucharest, pp. 26-29

This Version is available at:

<https://hdl.handle.net/10419/163349>

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IMPLEMENTATION RISK ANALYSIS OF CLOUD COMPUTING TECHNOLOGIES AT FARM LEVEL

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SUMMARY: *If there is some experience of project management in the rural economy on European Union markets, we can say that in Romania things go slowly. This can be primarily distinguished by poor absorption of European funds. Establishing a strategy, set up of Digital Agenda are targets assumed and fulfilled by Romania. However, the use of new technologies in rural areas is still low. This paper aims mainly migratory risk analysis applications used in the business environment in rural areas.*

Keywords: *cloud computing, improve performance, business, management, risk, technologies.*

Clasificarea JEL: Business Management, Agriculture Project Management

INTRODUCTION

In terms of a competition increasingly closer to having that work in the future, it becomes important that everyone clearly demonstrate, precisely and convincingly how can create value by making and make primarily those activities that create value, generating a project-oriented thinking [6] Risks, as explained by various authors (A. Simionescu 2008) Project Management, refer to future conditions or circumstances, which are beyond the control of the project team, which once occurred could have a negative impact on project.

For some, cloud computing is one of the most important technological revolutions which has emerged in recent years. For others, it represents the natural evolution of a set of technologies designed to achieve the long- waited dream of a utility computing. In any event, a large number of stakeholders cloud computing plays a role in the development of their technological strategies [3]

For business, cloud computing offers a real opportunity to diversify the business both by increasing agility business (ability to quickly take advantage of the business opportunity constantly changing, which is the key to success in business today) [2] as and access to smart agriculture

In the activity technical - economic level business environment, understanding of innovations brought by cloud technologies are essential in increasing the performance of all attendees.

MATERIAL AND METHODS

Preparation of this article has considered emerging risks in implementing cloud computing technologies to increase the level of business performances in agriculture. The materials aim specifically research carried out both in the cloud and in the economic field. Research methods are outlined in the primary analysis reports research of cloud computing domain and complemented by theoretical references from the literature.

RESULTS AND DISCUSSIONS

Because risks are often perceived as something detrimental to the project manager's first reaction is to look for ways to combat them. The solution should be designed to eliminate the risk or at least reduce it to take place. Encountered in literature are four methods of risk management [6]

Supporting risk - option is valid only when there is the possibility of bearing effect caused by risk, or when the other risk management options generate higher costs;

Risk monitoring - there are situations when availability of time to monitor risk and see if there is a possibility of disappearing;

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Avoiding risk - when the possibility of isolation and risk avoidance. If the project is certain stages with high-risk, you can proceed to the elimination stages;

Outsourcing risk - in some cases the responsibility for risk management can be moved out of the project, placing it in the charge of a third party. This third party must be skilled and capable of eliminating the risk.

The risk is manifested in several planes, of which: operational responsibility plan, technological plan and economic – financial plan. Oancea M. believes that Technological risk is manifested by the occurrence of inputs and products, malfunctions of facilities, choice and application of specific technologies or technological works, to specify the timing of their (ex. when trimming sheep, carrying irrigation etc.) [5]

Through scientific research and documentation through professional competence, responsibility and control can reduce the influence of technological risk. Technological risk is part of operational risk, that risk may have be influenced by a number of actions from staff units as: sabotage, embezzlement, forgery, slack etc.

In literature, Cloud Computing represents a very dynamic at the moment, with new providers and new offerings arriving all the time. There are a number of security risks associated with cloud computing, which must be properly addressed, so:

Loss of government services. For public cloud deployments, gives users control necessarily a cloud provider on a number of issues related to security impairment. Another problem that can occur simultaneously is that cloud service level agreements (SLA) cannot provide for such a commitment from the provider of cloud capabilities, thus leaving gaps in security.

Responsibility ambiguity. Given that the use of cloud computing services are spread throughout organizations, in both the cloud service provider and the beneficiary (users from the business of agriculture), responsible for security matters may be spread to both organizations. The division of responsibilities between the consumer society and supplier may vary depending on the model used for cloud computing (eg, compared with SaaS IaaS).

Failure isolation. Multi-hire services and shared resources are defining characteristics of cloud site is public. This risk category relates to the failure of mechanisms separating and use of: storage, memory, routing and even reputation between different beneficiaries (eg, so-called guest-hopping attacks). [7]

Provider. Dependence on proprietary services of a particular cloud provider could lead to binding consumer that provider. Services that do not support application portability, and other providers increase the risk of data unavailability of data and services.

Compliance and legal risks. Investments in achieving certifications (eg industry standard or regulatory requirements) may be endangered by migration, and use Cloud Computing, where the provider cloud cannot provide evidence of their compliance with the relevant requirements or if the provider cloud does not allow audit.

It is the user's responsibility to verify cloud provider has the proper certifications in place. It is also necessary for the farm manager to be informed about the security division of responsibilities between the consumer and supplier ensuring that consumer responsibilities are handled when using cloud computing services.

Handling security incidents. Detection, reporting and subsequent management of security breaches are a concern for firms in the rural economy, which expects cloud service providers to manage such problems.

Vulnerability management interface. Interface Management public entity in rural areas by a cloud provider are usually accessible via the Internet and media. Access to larger sets of resources compared to traditional hosting providers increased risk, especially when combined with remote access and web browser vulnerabilities

Protecting data. Cloud computing technology presents several risks for data protection for consumers in rural and cloud providers. Major concerns are not only exposure or release of sensitive data, but also include the loss or lack of data. In some cases, it may be difficult for the user's cloud (in the role of data controller) to check effectively use practices cloud provider data and

be sure that the data is used in a lawful manner. This problem is exacerbated in cases when there are multiple data transfers, for example, between the federated cloud services.

Internal malicious behaviour. Damages for actions malicious internal users working within an organization can be substantial, given access and authorizations they may have. This is exacerbated in the cloud from such an activity that could take place either at one or both organizations (client or supplier).

Cloud provider business failure. Such failures could cause business critical data and applications to be unavailable to users.

Unavailability service. This could be caused by a number of factors, from equipment or software or any errors in the data center provider, the failure of communications between consumer systems and services provider.

Erasing unreliable or incomplete data. For example, cloud resources deletion requests when a customer (manager of a farm) canceled its services from one provider, it cannot really erase the data. Because there is a possibility that the disc store other applications or information for proper with other guests, or children security features which are stored but not available, deletion will take a longer time, which can become an inconvenience for managers holdings in the environment rural economy.

In the case of the multi-tenancy and reuse of hardware, remove unreliable data represents a greater risk to the consumer than any dedicated hardware. [2, 7]

Table 1. List of security risks in cloud computing

RISK	SPECIFICATIONS
<i>User access rights</i>	Cloud service providers generally have access to information (data) users, such controls are necessary to address the risk of privileged user rights that can lead to compromised customer data;
<i>Location and separation</i>	By definition of cloud computing, it is noted that customers may not know where their data is stored and cannot be a risk of storing data and personal information of clients;
<i>Data erasing</i>	<p>Clearing data from the cloud and their permanent removal is considered a risk, especially when the hardware is dynamic and delete customer data according to their needs.</p> <p>Property cloud services for customers to demand an investigation report electronically limited to delivery model and complexity of the architecture used.</p> <p>The risk that data will not be deleted from databases, backup partition, is increased in the cloud;</p>
<i>Electronic Investigation and product monitoring</i>	<p>Cloud services property for customers to demand an electronically investigation report limited to delivery model and complexity of the used architecture.</p> <p>Customers can not effectively implement monitoring systems infrastructure that they are not hold, they</p>

	should be based on systems used by cloud service provider to support the investigation.
<i>Ensuring security in the cloud</i>	Customers cannot easily ensure the security systems it manages directly without using SLA and have the advantage of controlling their security agreement

Processed: Jaydip Sen, *Security and Privacy Issues in Cloud Computing* [4]

CONCLUSIONS

1. Holdings, managers, or economic - financial activity administrator's and / or production, seeking the use of cloud computing services, must carry out a comprehensive review and refine the own migration risks to the cloud.
2. Cloud providers must provide all necessary information to clients that request cloud services;
3. Security and legal security for business users in agriculture should be the key drivers that underpin tenders for cloud services;
4. Technically, the choice of cloud provider is apparently not a difficult decision for managers of agricultural holdings, given that most services are similar. However legal compliance, especially in European Union data protection legislation, must be considered eliminatory criterion for bids;
5. Creating or running a business especially in the agricultural business environment is a challenge for any manager. Adapting to modern technologies is an unwritten rule imposed on the market. Risk analysis has played and will play a key role in the development and set up of any business.

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