Cloud Computing Technology – A Digital Transformative Solution For Banking Industry-An Overview

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***ABSTRACT**The banking industry hosts a large amount of customer data and is always anxious with providing the best services to its customers. In such a scenario, cloud computing technology is the contemporary transformative digital solution that offers unprecedented security, quickness and scalability to banking industry, while improving the ability to manage customer data. Several benefits are offered by Cloud technology such as cost effectiveness, enhanced data processing capacity and high-end financial services, digital accountability, transparency and timeless. Additively the application of cloud computing in banking industry provides the relative solution for the security issues. Large banks, building their own customized financial cloud as a precise tool, in contrary small banks relying on public financial cloud for a cloud service provider, can help their business to grow quickly and effectively by reducing information gap with limited man power. This paper is intended to provide an overview to this advanced technology and advantages of the cloud computing of banking industry above the traditional banking processes.*

Key words: Banking industry, Cloud computing, Digital solution, Financial Services, Security.

1. INTRODUCTION

The consumer centric approach and the advanced competing climate is urging banks for introducing its digitalization programme as essential. All the changes made industry to think again the position of banker more as an "enabler" than a contributor of products and services levering to a wide scope for cloud technology an off the rack solution. This transformation involves 3 successive stages, one being the development of required clouds, second one featured the transformation of technology infrastructure, finally, involving far-reaching changes in the organization, in digital environment it will achieve strategic positioning, Whereas banking industry is at neo- adaptation stage our current concern is to envisage the scope for fast paced

adoption of cloud technology. Though the cloud services provide a wide range of storage of data, flexibility in storage, distribution and enabling the data remotely with ease, poses various challenges to the providers like protection and confidentiality for the data stored in the cloud.

2. AN OVERVIEW OF CLOUD TECHNOLOGY IN BANKING SECTOR

The arrival of cloud technology has transformed banks to increasingly adopt cloud technologies to fulfill their varied purposes which could react as early as possible for the needs of new entrants to respond for new business requirements. This can accumulate and organize the data on virtualized servers so that, the applications, individuals and organizations as on whole world can enable the records and this computing resources from anywhere and at anytime which increases the reliability since the information and applications stored and backed up on several computers which the possibility of loss of data and application. The financial institutions pay for operating costs as well as salaries for their utilized services. It supports in reducing expenses with no efforts and can check the results of new applications from cloud and existing conservative infrastructure. In cloud computing, organizations begin for saving their information in the cloud where need of security arises. Due to, all firms have begun migrating their data to cloud, chances for hacking, unauthorized usage of services and etc. are possible. So, it is important to protect the data saved in cloud is to be ensured with the support of providers of cloud services.

Now-a-days business organizations started using big data which is cloud based, to analyze and improve its sales performance to endure in the marketplace to win the competitive market. Reason to use the cloud system is its cost advantage and security provision. Within a short period of time, using the improved technologies for analytics cloud helps to improve the performance of a business. Cost reduction is possible with Cloud computing for the provision of resources and creation of environment.

3. REVIEW OF LITERATURE

Lucian Alexandru Fratila and Procedia (2013) analyzed that the providers of cloud service is safe than any other choice to promote and able to offer enhanced expanding, readiness towards market, reduced expenses and safety. Banks can execute a public or a hybrid cloud result can take a regulated style like employing a authority or firm which constructing with the cloud.

Rieger, P., Gewald, H., & Schumacher, B. (2013) identified that for taking the decision of application of cloud computing in offering services by banks the cost also plays a major role being a financial factor. This cost effective decision creates pressure to provide the products of competitive nature and which leads the banks to focus on standardization of these products which is possible with this cloud computing. A particular bank's competitive advantage depends upon the cost structure of their business products and services offered to their customers. Because of this cloud computing there will be a reduction in costs.

K. Sudhakar (2014) opined that Banks have to choose a realistic method for data privacy along with security in cloud. Several financial institutions segregated the records of data among various stages based on sensitivity from bottom level which published broadly without any limitations to particularly secure which can be accessible by only top-level decision makers. Banking services organizations are starting to opt this technology for so many fields.

A. Mahalle, J. Yong, X. Tao and J. Shen, (2018) mentioned in their paper that banks and financial services those with internal information technology security team which establishes a

security framework a stable assessment of this construction and maintaining as per changing state of affairs is important. With the existing problems in the system, there is a chance of attack from outsiders is there and hence it should be the priority that is cloud security for banking.

4. RATIONALE OF THE STUDY

To limit the demand and supply gaps of services in banking industry, the industry has to opt a progressive technology as an essential solution. This study gives a brief understanding on one such technology that gives promising alternative for the bottle necks in service delivery.

5. OBJECTIVES OF THE STUDY
1.To address the high-end consumer centric services.
2.To envisage Scope of big data storage in banking sector.
3.To consider relative advantage over conservative banking procedure of cloud computing.

6. APPLICATION OF CLOUD TECHNOLOGY FOR BANKING SERVICES

Now this technology is quickly changing its role as very essential in computing framework. This computing can modify wholly the picture of financial services. Unlike the traditional system of data storage, cloud storage provides various benefits to the users like easy transfer of files like pull and go down in between local storage to cloud storage, web source to send and receive the files, easy accessibility to the stored data with low cost and in addition to this, safety to the data stored and easy repossession at emergency are also the added advantages of present technology. Anybody at any time will have the access based on pay-per-use with cloud from the institutional level of the system of banking. The majority of the informational technology experts agreed that with the application of this cloud technology, there will be reduction in capital and functioning costs and minimum power consumption is possible and it saves time and increases its operating efficiency.

Cloud computing is a web service that could be used by a diverse set of consumers like MSMEs, educational institutions, hospitals, IT based companies and etc., depends on their requirements like OS, processors strength, tools and applications, this service is used to store and retrieve the used data from time to time.

This technology is treated as a business model. Now this technology is not a device which is used in IT, but it changed the entire business world as a new business model. This enables the companies to get the services based on IT through internet. This cloud based business model offers the business organizations minimum investment, moderate working expenses, and price based on use. This cloud computing services in banks can be operated at various levels such as infrastructure, software, platform and commercial procedure. In cloud each variation has its specification in banking services.
The main variations in cloud technology are-

Public clouds: Public clouds through a network channel are enables the IT services of third party providers by extending the competencies of a data centre. The cloud providers can be shared the data and processing on certain framework to other customers or tenants from anywhere of the world.

Private clouds: Private clouds are assembled in the inherent data centers of banks through the execution of virtualization. In case of private clouds, these are creates highly protected habitat which cannot be disclosed outside tenants.

Hybrid clouds: Hybrid clouds are a mixture of both private and public clouds and based on the understanding of the data and application in all mechanism, and the level of seriousness and discrimination of the business. Many banks are following the hybrid cloud strategy though they have own cloud and situated inside of the bank and it is maintained by external persons.

Public "Sovereign" cloud: The public "Sovereign" cloud an emanate option and here the public cloud providers perpetrates for keeping cloud data and transform under a particular jurisdiction. It makes the convenience the acceptance with the data security rules and regulations threatening the personal data from transfer away from the national borders.

Cloud computing is influenced by many third-party service providers. Though the data are saved in cloud and the hard copy needs to be stored either in the document form or in any of the electronic form. It is not even understood by many people that, In Cloud data is saved in 'service farm' which is like warehouse where any quantum of information stored and retrieved whenever the need arises.

7. BENEFITS OF CLOUD COMPUTING

The Cloud computing is a data services prevailing in the market using internet based services. The service provider offers efficient and effective services even in the utilization of cloud space. The improvements are to be implemented by the service providers in its cost consumption and technique of scheduling. On demand self service is also one of the main characteristics of cloud computing which provides various services which requires no interaction of human by the assistance of other service providers.

1. Centralization of data that pools the information giving easily enabling at a particular time and place.

2 IT-based technology cost is declining consistently cloud computing is better to go to this technology.

3. Banks can reach customer demands and scale very fastly, continuous provisioning of resources of computing with well designed cloud computing technology

4. High speed service deployment gives a running edge in providing better quality and quantity over conventional procedures.

5. Provides strategic edge in contemporary competitive private and public sectors.

6. It enables the employees to collaborate across distributed branches for trade access.

8. CHALLENGES OF CLOUD COMPUTING

Though the cloud computing technology is existing conception to banks, there was a delay in undertaking this technology into operation in conjugation with lack of core banking application solutions further delayed the process with following other challenges.

1. Lack of skilled personnel is the major catch.

2. Confidentiality of data might be at a risk.

3. Network connectivity dependency might tamper the quick services.

4. Lack precise knowledge on regulations of data storage and security.

5. All customers in a neo-adaptive stage quality of services might be compromised because of limited experience.

9. CONCLUSION

Cloud computing can prove as an essential which provides solutions for various new demands for agility, clarity and competence. Reducing markets and worldwide competition is becoming reason for several challenges. This technology gives several offers such as swiftness, elasticity and original data need to meet the challenges on cost-reducing purpose. Continuous advancement of this technology for banking sector and vendors is essential to overcome these challenges. Though there are several benefits, cloud computing endures a limited acceptance rate among the organizations which require this type of services. The banks must implement their cloud to have related and suitable security. Financial and other service institutions are going to take on cloud computing technologies for several areas such as mobile applications and checking of modernization and micro banking also.

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