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PERCUSSION OF CLOUD COMPUTING ON E-COMMERCE BUSINESSES

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ABSTRACT--*Cloud Computing is the magic word which rules entire marketing industries now-a-days. It's a boon to the world and a very innovative and emerging technology of IT sector.Modern marketing has reached its present stage after undergoing several paces and drastic revolution over the years by continuous pace of changes with the fast evolving technological revolution.Cloud Computing, uses Internet and remote servers to maintain user's data and applications. It accesses permission to the customers as well as the businesses people to use various applications without installation and access their personal files, data and information at any corner of the world with the help of internet. There are various types of software application are working on the environment of cloud computing service. E-Commerce is became the major service of cloud computing. The primary data for this study is collected by using convenient random sampling method with the sample size of 65 service providers through a questionnaire. This paper was discussed about how E-Commerce business implemented by the cloud computing service. What are all the driving-forces which led to the changes of E-commerce in era of cloud computing, the different types of models like deployment model, delivery models of cloud computing service which are used to attain the target, Traditional E-commerce business models and how these cloud computing and e-commerce models were interconnected were discussed briefly.*

Keywords*-- Cloud Computing, E-Commerce,Approaches, Network Security, Business Models*

I. INTRODUCTION

The "cloud" is an allegory – it is abstraction hiding the complicated infrastructure of the Internet Technology. It is a low-cost usable option to the end users in which IT-related capabilities are given "pay-as-a-service", allowing users to access Internet technology, which supply and deliver to the users with Information Technology services according to their demands. E-commerce came into existence since late 1970s. It was speculated to offer however the business transactions area unit created electronically through EDI (Electronic Knowledge Interchange). ETF (Exchange-Traded Fund) cloud computing and e-commerce area each unit wise useddue to their price effectiveness. The cloud computing permits organizations to conduct business while not having to develop and maintain IT infrastructure. E-commerce provides the flexibleness for business to sell products online while not having to physically rent associate degree workplace.

II. OBJECTIVES

1. To understand the Deployment and delivery models of Cloud Computing in E-commerce marketing.

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2. To analyses the implementation of Cloud computing models in E-Commerce Business models.

III. APPROACHESAND DELIVERY MODELS OF CLOUD COMPUTING

Today, there are many detonations of cloud computing. Wikipedia goes, Cloud computing involves deploying models of multi remote servers and software networks that access various kinds of data sources which can be uploaded for real time processing for the next generation results without the need to store (processed) data on the cloud.

Delivery Model 1: Integration platform software - iPaaS

Integration platform is a platform service (iPaaS) that renders functionality similar to integration platform software, but as a hosted cloud service. It is a better option for organizations looking to outsource the operational aspects of their integration middleware, but has more limited functionality to integrate deeply with on-premises applications. Its core competency is the ability to handle complex integrations.IaaS is a single layer cloud model where cloud computing vendor's dedicated resources are only shared with contracted users at pay-per-use service. As an initial investment cost of computer servers, results, networking devices, processing power etc. are minimized.

- ***Delivery Model2: SaaS vendor tooling***

Several SaaS vendors offer out-of-the-box integrations, and third parties provide extensions or plug-ins that enable easy integration between applications. However, these comfortable comes at the low penny of flexibility and control.SaaS is based on pay-per-use basis costing model where software applications are leased out to contracted organizations by specialized SaaS sellers. SaaS giver may host the software either in their own data network center. Web services (WS) security, XML encryption, Secure Socket Layer (SSL) etc is used in enforcing data protection transmitted over the Internet.

- ***Delivery Model3: fPaaS***

Many cut-edger organizations are having leverage functional platform as a core service (fPaaS) to provide a customized set of integration software. This approach involves substantial knowledge with a functional-oriented software development and cloud-native bias architectures. PaaS cloud model layer is resembles like IaaS model with an add on feature of Rent cost for usuage. Virtual machines are also secured against an unauthorized attacks such as cloud malware attackers and hackers. PaaS model services are more costly than IaaS and SaaS.

Figure 1: application middleware

IV. DEPLOYMENT MODEL OF CLOUD COMPUTING

The first step is to adopt; which cloud model will suit our requirement. Basically there are three types of deployment model in cloud computing services.

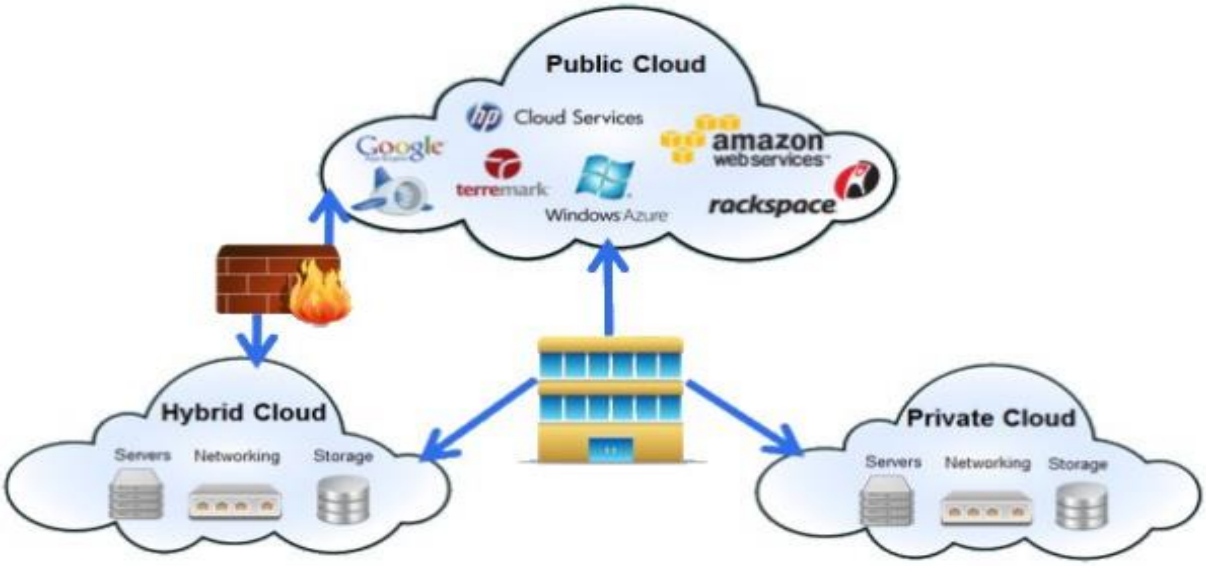

Figure 2: public cloud

- ***Public Cloud:*** A cloud is termed as "public cloud" once the cloud computing service area unit given over a network that's open just for general public use. This model relies on pay-per-use technique, same as paid power meter technology. It's ideal for businesses seeking less advanced Info technology hosting. Applications runthereon have either seasonal demand or unpredictable traffic. It's less secure cloud models
- ***Private Cloud:*** Private cloud model is meant with organization's internal enterprise knowledge based centre.Solely the organization folks and selected stakeholders could have use to control on a selected non-public cloud. Thus, non-public cloud model is way safer than public cloud model. Rather like computer network, all the resources and applications square measure managed by organization itself.
- ***Hybrid Cloud:*** Hybrid cloud could be a combination of each public cloud model and personal cloud model that is centrally circumscribed and managed by a secure network. Itoffers safer management of the information and applications and provides numerous parties to access data and info over the net.

V. E-COMMERCE AND ITS MODELS

Electronic commerce is one amongst the most criteria for the revolution of Knowledge Technology and communication within the field of e-marketing world. This edge for business now-a-days is Electronic Commerce, it includes all electronic group action like shopping for, selling, data flow and fund transfer over the net.

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Figure 3: Different ecommerce models

- Business-to-Business (B2B): the transaction between business enterprises.
- Consumer-to-Business (C2B): this mean the customers selling products and services to the Business Enterprises.
- Business-to-Consumer (B2C): this means the transaction among Business Enterprises and customers.
- Consumer-to-Consumer (C2C): this mean the business transaction among users or consumers.

VI. CLOUD COMPUTING AND ELECTRONIC COMMERCE (E-COMMERCE)

Cloud Computing and E-commerce are now two important part in our day to day life. Cloud gives positive opportunities for e-commerce, but while at the start up stage, an organization should have a trade-off between costs and consumption. E-commerce and cloud computing are described as follow:

- The rapid growth of the global economy by involving in more online web based transactions.
- Online shopping is become a casual trend of purchasing as it is more convenient than traditional mode of shopping.
- The security of data and information technologies are improving enormously.
- Owing to this technology upgradation, the customers level of education and IT skills were improved.
- Acceleratesall types of Industries into e-commerce Industry across the world.
- It paves more opportunities to small and medium scale business organizations to uplift their business to across worldwide withthe Internet technology with cost less operations.

VII. RESEARCH METHODOLOGY

- The research methodology depicts the research process and serves as guidance for the research to carry out this study. It comprises of data source, sample size, sampling techniques and tools of analysis. In this research study, the researcher has used the primary data obtained from 65 respondents working in various sector.

Research Design	Descriptive Research

Study area	Various cities in India
Study Population	Service Providers using various E-commerce websites
Sample Size	65
Sampling method	Convenient Sampling
Nature of data	Both Primary and Secondary
Sources of Primary data	Survey method through Questionnaire
Sources of Secondary Data	Journals, Previous Research reports, Magazines & Websites
Statistical tools	Measures of Central tendency- Mean, Standard deviation, t-test and ANOVA

VIII. DATA ANALYSIS AND INTERPRETATION

The Primary data was collected through questionnaire consists of various parameters from the service providers.

HYPOTHESIS I

Null Hypothesis: There is no significant relationship between the implementation of Delivery model and Deployment model of Cloud computing in E-commerce

Table 1: t test for VariousModels implementation of Cloud Computing in E-Commerce

Statements on Personal Financial management	**Mean**	**SD**	**t value**	**P value**
IAAS1	**3.89**	**1.06**	**15.773**	**< 0.001****
SAAS2	**4.09**	**1.01**	**20.287**	**< 0.001****
PAAS3	**3.97**	**1.12**	**16.470**	**< 0.001****

Interpretation: Based on the table no. 1, Since P value is less than 0.01, the null hypothesis is rejected at (** denotes1% level) 1% level of significance with regard to all the statements of Implementation models of Cloud Computing in E-Commerce.

Hence there is significant relationship between the Delivery model and deployment model of Cloud Computing in E-Commerce.Based on the mean score, all the statements on IAAS models is the above average level. From this it is concluded that the marketers place high dependency level of belief in the implementation of deployment models i.e.public,private and hybrid along with delivery models of IAAS,SAAS, PAAS in their E-commerce marketing business.

HYPOTHESIS II

Null Hypothesis: There is no significant relationship between influences on Cloud service modes and E-commerce Business Strategies

Table 2 :ANOVA Influences on E-Commerce Business Strategies and Cloud Computing service modes

Particulars	Sum of squares	Df	Mean square	F	Significance Value
Between Groups	**01.187**	**5**	**0.289**	**0.646**	**0.615**
Within Groups	**52.614**	**60**	**0.545**		
Total	**53.801**	**65**			

Interpretation:

Based on the table no.2 ANOVA result generated, the significant value is 0.615 and it is greater than 0.05 at 5% significance level. Hence the null hypothesis is accepted since there is no significance relationship betweeninfluences on Cloud service modes and E-commerce Business Strategies.

IX. CONCLUSION

The new emerging technology of cloud computing is creating a new ecosystem service which which combined all the E-commerce services and facilitate with new service models. Cloud computing helps the organisation to attain more efficient use of their Information Technology hardware and software investments and give a means to shoot up the acceptance of innovations. Cloud computing service has enabled teams and organizations to streamline lengthy acquisition processes. Cloud computing is still a very new technology and we still having more room for improve the service of cloud computing. In the traditional E-commerce options, an proper strategy of implement in the cloud computing era is to cuddle cloud computing rather than avoiding on it. Only when the E-commerce embrace cloud computing within the business strategy and establish the core competencies, will they realize the prospective development in future ahead.

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