



# Academic Behavioral Intentions (BI) towards a Multi Cloud Approach Using Social Cognitive Theory (SCT)

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*Abstract- Multi Cloud computing is one of the top most technology innovation. The wide spread of this technology in the academic remains unexplored. The main purpose of this paper is to examine academic behavioral intentions(BI) towards multi cloud computing in an educational platform by using the concept of social cognitive theory. The study was tested among a group of students to develop an understanding about the inclination, multi cloud tendencies, academic intentions, self-efficiency and output cracks on behavioral intention and learning future enhancement of multi cloud computing technology. The outcome indicates that the multi cloud tendencies and academic intension indicates the academic behavioral intention to adopt multi cloud computing as an educational learning resource. The statistical analysis were conducted to support the view of social cognitive theory can help to understand the main internal and external drivers of increasing an individual's in academic intention to adopt multi cloud computing as an educational learning instrument. The model was growing as one of the important invention to push huge resources to the multi cloud. Academic institutions were taken an interest to adopt the multi cloud model to facilitate the individual intention. In this paper , the interactive technology, educational and digital by integrating social cognitive theory (SCT) with multi cloud computing services to highlight the importance of individual's learning about innovations and adopting them in a higher educational setting.*

**Keywords-** Multi Cloud, Behavioral Intentions(BI), Multi cloud tendencies, Academic intentions, Social Cognitive Theory (SCT)

## 1. INTRODUCTION

Multi Cloud Computing is one of the most popular technologies available in this era as a Utility, customers utilize the concept of cloud computing in the way of “pay-as-you-go” for applications, computing and storage resources . this technology is evolved from the grid computing, cloud computing, and distributed cloud computing such as mobile applications , online platforms and other available virtual platforms. The model was growing as one of the important invention to push huge resources to the multi cloud With the concept of pay-as-you-go , the elasticity in upgrading or downgrading in major resources makes Multi Cloud Computing a popular model for organizations, industries and in academics. The innovative technologies and different types of services available(Infra structure as a Service, Platform as a services, software as a services ) in the cloud computing can also be integrated in the multi cloud also. Moreover, the cost factor of Multi Cloud Computing is encouraging its adoption; needed a high level behavioral intentions of and about to decide whether to build up their own IT



infrastructure or to utilize Cloud infrastructure may find that using a Multi cloud infrastructure will give a better balance between cost and elasticity.

Multi Cloud Computing can be defined as “a system, where the resources of a data centers is shared using virtualization technology”, which provide elastic, on demand and instant services to its customers and charges customer. Typically, the term “multi-cloud” refers to organizations using two or more public cloud providers and, their own private cloud to deliver IT resources. The model is growing as powerful enterprises continue to push more resources to the public cloud. Often, such a move arises from an effort to stop overreliance on anybody public cloud provider. As with the cloud and automation are vital to a true multi cloud strategy. The statistical analysis conducted supports the view that social cognitive theory can help to know the most internal and external drivers of accelerating an individual’s intention to adopt cloud computing as a learning instrument. This paper contributes to the interactive technology, educational and technology marketing literature by integrating social cognitive theory (SCT) with multi cloud computing services to highlight the importance of individual’s.

The goal of our work is to understand academic behavioral intentions towards Multi Cloud approach using social cognitive theory. I try to sense the academic behavior that may indicate to a possible attack based on a proposed attack model. Cloud computing is one among the main innovation advances in information technology. More consumers to adopt cloud computing as a technological innovation there needs to be a better understanding about the innovations. While there is an increasing amount of interest in cloud computing as a technological academic innovation there is an important need to examine the reasons why consumers adopt cloud computing. The technology accepts and social cognitive theory are identified because the theoretical frameworks to understand the academic scholar adoption process of multi cloud computing. A set of research hypotheses are stated from both theoretical frameworks to test their relationship with a academic intention to adopt Multi cloud computing as a technological innovation. These hypotheses focus on perceived usefulness, perceived ease of use, online academic behavioral advertising knowledge, social cognitive, ethical tendencies and online privacy concerns. The findings of the study outline the various areas of technological innovation research that are needed so as to advance the knowledge technology industry within the future.

The findings suggest that perceived ease of use, perceived usefulness and online privacy concerns can determine a academic intention to adopt multi cloud computing but online academic behavioral intentions knowledge and social networks differ amongst scholars in different countries. Some of the key issues influencing the scholars to adopt the concept of cloud computing are outlined, which due to the emerging nature of this technological innovation will influence the regulation and education of cloud computing services by firms and governments in the technology sector.

## 2. MATERIALS AND METHODS

Multi Cloud computing consist of virtual computers ,storage devices and servers. The three types of cloud computing offers collaborative support and services, cloud transfer, back-up, resources on demand, simplifies operation. The demand of multi cloud technology has been increasing the day by day. The concept of this technology can be established and extended to the academic section also. Also identifies this multi cloud technology as a major contribution to all of the sectors that uses the advantages of the cloud computing. Moreover that, highlighted shared technologies doesn’t reach to the level of extreme in the academic . hence Multi Tenancy remains as a threats to Multi cloud computing. Virtualization is one of the leading process hosting layer such as servers issues where competitors will have separate VM in the same physical machine. The theories has attempted to elaborate the academic behaviors intention(BI) is the key factor in the usage of IT system services. Several areas considered as danger in Clouds.



2.1 The key features multi-cloud computing are:

1. Dealing with service/resource on demand;
2. Cost effective or improving quality of services;
3. Acting as intermediary;
4. constraints;
5. High availability of resources and services;
6. Avoiding dependence;
7. Ensuring backups;
8. Reacting to changes;
9. Enhance own Cloud service/resources offers;
10. Consuming different services.

2.2 Academic behavior with cognitive factors:

Few studies give the assumption that the social cognitive theory (SCT) aggregates the concept of academic behavioral Intention. The multi cloud computing is a critical factor in the initial stage of the academics. Lots of scholars are now using the concept of virtual learning , in this area the behavioral intentions can help us a lot. The concept of cloud logical progress can form multi cloud. Social Cognitive Theory between the individuals and their environment is both structural and social. The three key factors of this theory (observational learning, self-efficiency, outcome expectations) helps to develop a logical thinking towards the multi cloud computing technology in academics.

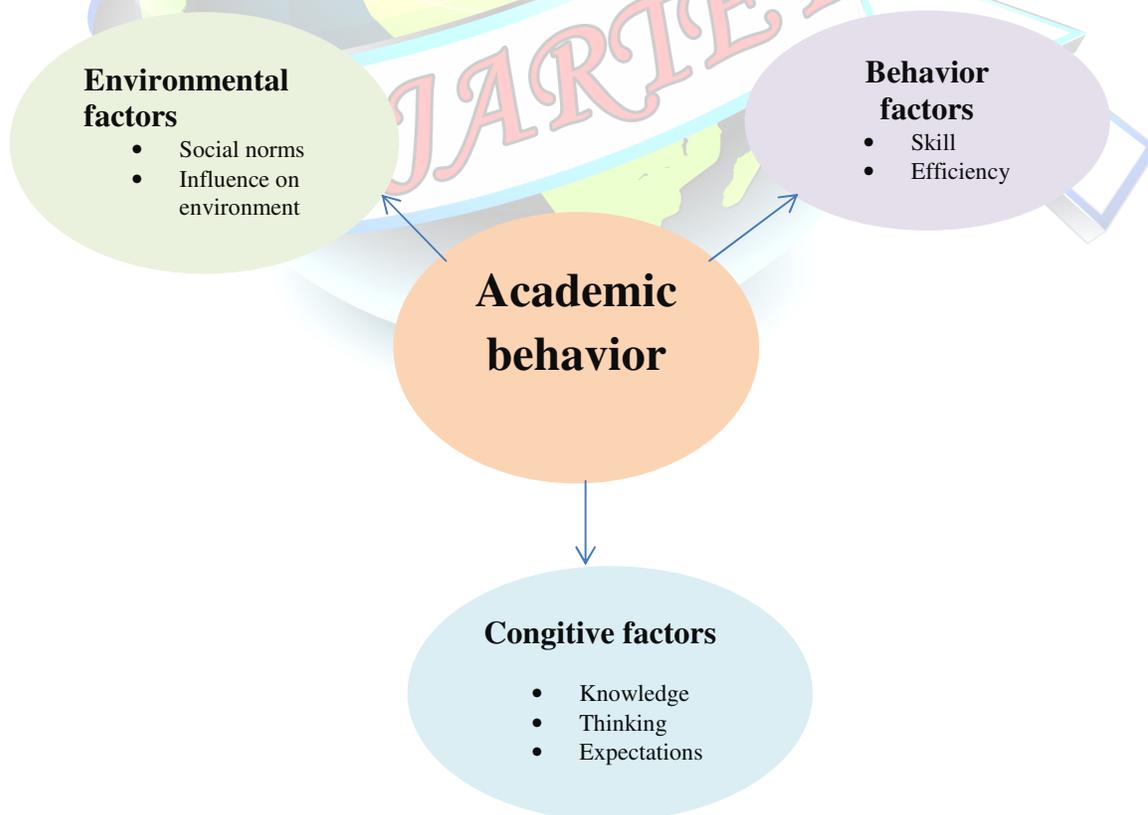




Fig 1: Academic behavior architecture with cognitive factors

### 2.3 Applications of Social Cognitive Theory in multi cloud:

Applications of Social Cognitive Theory in multi cloud research are related to a study in academic workplace learning and innovative academic behavior that has been designed to create new thoughts on: (1) academic information literacy; (2) skill management; and (3) the relationship between information behaviors and innovation processes. It is also understandings about the Social Cognitive Theory as a valuable tool for implementing multi cloud domains that focus on learning processes.

- **Observational learning:** Individuals are more likely to perform a desired behavior if they observe others modeling that behavior and experiencing the next positive rewards.
- **Self-efficacy:** Individuals are more likely to practice a desired behavior if they perceive that they have the specified skills and capacity to undertake to so.
- **Outcome expectations:** Individuals are more likely to practice a desired behavior if they believe the advantages of performing that behavior and outweigh the prices .

### 2.4 Multi cloud learning:

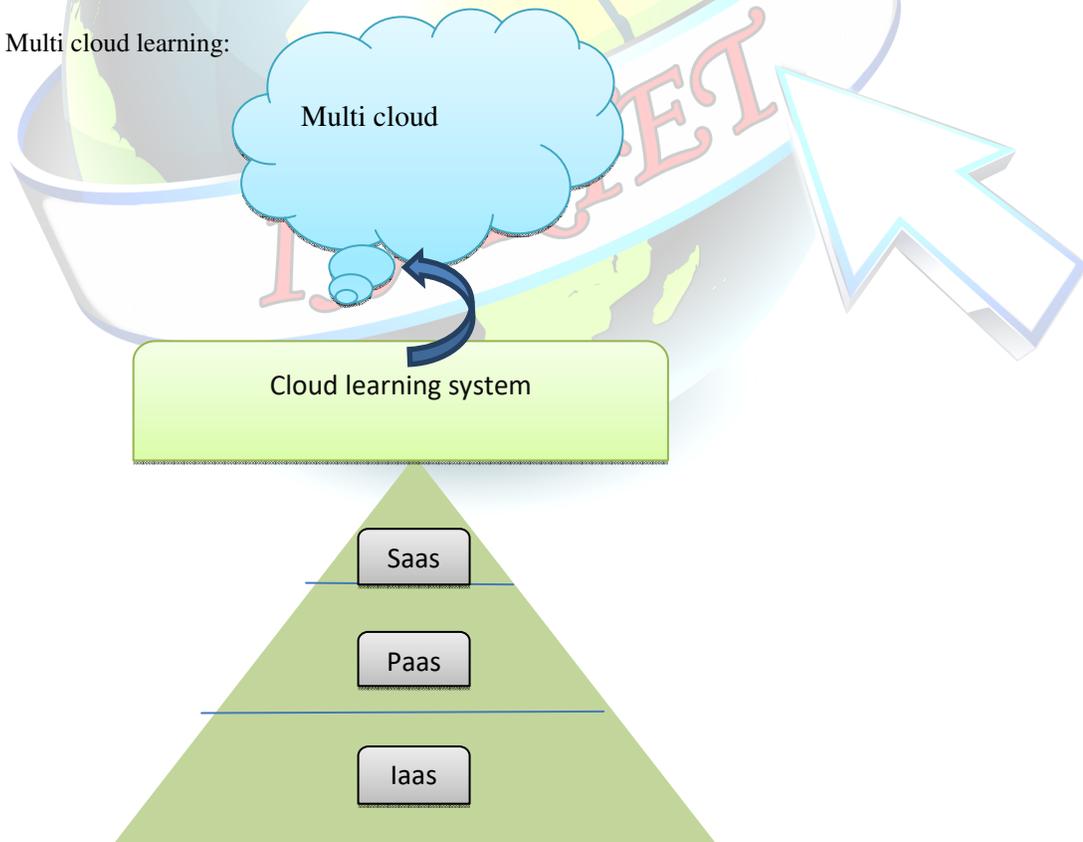




Fig 2:Multi cloud learning architecture

Multi-cloud is the concept of two or more cloud computing services from number of different cloud vendors. A multi-cloud aspects may be all-private, all-public or a combination of both ( hybrid ). Many of the companies and academic institutions use multi-cloud environments to distribute computing resources and minimize the risk of downtime and data loss. They can also increase the computing power, throughput and storage available to a business aspects. Innovations in cloud in recent years have resulted in move from single-user private clouds to multi-tenant public clouds .

### 3. RESULTS AND DISCUSSION

Based on the reviews, search on different articles and statistical analysis I focus a conclusion that Academic Behavioral Intentions (BI) towards a Multi Cloud Approach Using Social Cognitive Theory (SCT) is good in almost all the area of academics. Many universities worldwide are trying to keep in touch with new technologies and services. The factors affecting academic behavioral intention of using cloud technologies through analyzing factors that affect staff acceptance of cloud services.

### 4. CONCLUSION

The cloud computing is one of the fastest utilizing technology with the many applications in lots of industries as well as in the academics. Many universities worldwide are trying to keep in touch with new technologies and services. The cyber security have taken major concern about the hybrid clouds and multi cloud in the case of schedule maintenance and services. By using the concept of the social cognitive theory (SCT) the academic behavior intention towards the multi cloud technology has been blossoming. Multi-cloud paradigms combine with other technologies such as machine learning , crypto currency and big-data can elaborate the cloud computing and also to solve some of the current issues with cloud computing.

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