Management Information Systems (MIS) in Cloud Computing: A Review

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ABSTRACT

The process of collecting information is worthless if it doesn’t benefit the firm or serve any purpose. Management information systems (MIS) involve the use of set of protocols which are applied on data/information to generate intelligent business solutions. This study reviews the role of MIS in cloud computing and the impact it has globally. MIS products and cloud companies have been researched in detail. In this regard, some of the world’s top cloud based service firms have been reviewed thoroughly, including their workforce resources. Additionally, new and upcoming MIS product details have been explored along with their launching dates. It is important to note that cloud services as old as 20 years have also been discussed in this review. Discussions have been made with reference to MIS need, problems and products to solve these problems. Currently, MIS along with cloud computing is unfolding vague patterns, inventing new ideas and ensuring business success. Since cloud computing is the future of internet, the paper provides insights to the future of cloud giants and impact of these globally.

KEYWORDS

Analytics, Big Data, Business Intelligence, Cloud Computing, Cloud Services, Dashboards, Information System, Management, Protocols, Real-Time

INTRODUCTION

Management information systems (MIS) consist of three individual components that define its purpose. “Management” involves planning, implementation, monitoring and control of an entity or an organization, Information pertains to raw pieces of data that are used in a study. System involves the transforming block which converts raw data into decisive information or vice versa. Hence MIS can be defined as a process of planning, monitoring, and implementing a series of protocols to convert raw data in to structured information and vice versa. MIS involves the use of necessary protocols to general necessary and possibly intelligent business solutions that can be used by an entity for growth on profit.
LITERATURE REVIEW

Need for MIS

An increase in the number of customers and their demanding needs are perpetually keeping business organizations on their toes. Business start-ups and emulation from rival companies also tend to grow exponentially. In order to stay ahead of the competition, it becomes necessary to adopt intelligent business etiquette besides new innovative steps for ensuring the continuity of business.

These fastidious set of steps can only be taken if one has appropriate understanding of where the organization is really heading, the expectations of their new customers, the on-going sales portfolio, margins etc. The mentioned information come from systems, hence it becomes necessary to monitor and control those systems in order to have authentic, contemporary and unerring information. If quality information in any system can be accessed appropriately; managers can take excellent decisions with confidence.

Organizations may use various information systems such as the following.

Supply Chain Management

In an organisation there is always an exigency to know the whereabouts of the wavering supply. More often than not, they use it to tackle inventory amount stocks, shipping details etc. Hence if the requisite info is provided, there are far lesser chances of an organisation undergoing down time and delaying supplies to customer or launch of new products.

Human Resource Management

Responsibilities of this department involves being cognizant to resources currently working and appraising the future resource requirements. Resources mostly involve human capital and the responsibilities also involve motivating employees through various means such as events, admiration certificates etc. The discernment of who requires how much and what type of motivation can only be done through tracking their work and that again is achieved by information systems.

For example, consider a situation where HR dept. recognizes the rising stress levels and increasing frequency of breaks among the employees. In such a scenario, they can utilize information systems to compare work assigned to them and what an average employee is able to accomplish and hence regulate the amount of work and design stress management programs accordingly.

Thus, having precise and reliable information is a prerequisite for the management to take decisions about importing new talents and resources and this is precisely what MIS aims to accomplish.

MIS for Marketing Management

As discussed earlier, any organisation’s customer base may break geographical barriers and extend to many locations. However, any potential business clients can be classified on different yardsticks as gender, location, buying habits, buying frequency etc.

Now let’s consider an example, where there are no information providing systems and sales are going haphazardly anywhere without any recognizable trend. There’s no way for marketers to know about the existing and potential new customers without having information like locale of customers, expectations from the product and maybe grievances and suggestions from previous products. Hence all this is executed by firstly planning followed by implementation of data gathering devices such as
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