

Chapter 69

Awareness of Sustainability, Green IT, and Cloud Computing in Indian Organisations

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ABSTRACT

This chapter examines the level of awareness that organizations in India have of the concepts, strengths and benefits of sustainability, green IT and cloud computing. Very few research papers have examined the sustainability, green IT awareness and cloud computing issues in India, and it has become necessary to ascertain just where Indian organizations stand when it comes to these concerns. Before determining whether these organisations are progressing towards sustainability, green IT and cloud computing, it is first necessary to determine whether, and to what extent, they are aware of these concepts. This research is to obtain answers, which hopefully will be a first step in a shift towards sustainability and green IT, via an online survey. Seventy-five respondents from public and private Indian organizations participated in this survey and confirmed that cloud computing is efficient, flexible and easy to maintain, although security and privacy are major concerns for Indian organizations.

INTRODUCTION

Sustainability, green IT and cloud computing are currently hot topics in research studies as well as in organizations and businesses. Due to the increase of greenhouse gases and global warming, many organizations and businesses are shifting towards becoming green and sustainable. One of the first changes that they implement is in their IT infrastructure because the ICT sector is a major contributor to the

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increase in greenhouse gases which leads to an increase in global warming. The topics of green IT and cloud computing are attracting much discussion and research. These changes in IT infrastructure and the IT sector are taking place all over the world, not just in a few countries. In some countries, governments are promoting green IT and cloud computing by providing policies and guidelines, and encouraging businesses to adopt environment-conscious practices by giving them special benefits. Much research has been conducted on the issues of sustainability, green IT and cloud computing with a common understanding that there is a need to initiate a shift towards sustainability and green IT because of increasing environmental problems and social pressure. Cloud computing is also emerging as a hot topic of research and discussion because it is considered to be the next wave of sustainability and green IT.

Sustainability means using resources wisely to save for the future generation without compromising the needs of the present generation. With technology moving towards sustainability, IT practices and products need to be made greener and safer. Green IT is considered to be the first wave of sustainability. Green IT means implementing green practices in terms of all IT processes and product life cycles. Green IT also includes the use of energy efficient IT products, use of power management software and reusing and recycling IT devices. Cloud computing, on the other hand, is considered as the second wave of sustainability and an extension of green IT which simply is the sharing of resources and applications by a number of people at a single cloud provided by a single vendor.

This conserves power that would otherwise be consumed by huge data centres, and requires less hardware at the user end which results in less wastage of resources. This chapter aims to examine the levels of awareness, regarding sustainability, green IT and cloud computing, of Indian organizations. India is the second largest country in terms of population so it contributes a lot to global warming so it becomes necessary to find out the initiatives and steps taken by the Indian government and organizations in making IT green.

Cloud computing is a relatively new concept in the business world and not many companies in India are thoroughly familiar with it. In actual fact, many Indian-based IT companies are outsourcing cloud computing services to companies in other countries, but have made little effort to introduce this concept in the Indian business world because of cost factors. The conclusion was that the awareness was there but the level of awareness was low or negligible. Some companies have adopted cloud computing in their operations but these are few and far between. The Indian government has done little to promote sustainability, green IT and cloud computing.

IT companies have shown the same lack of effort to promote these concepts in India. The time to take action is now – before it is too late and India is left behind by the more forward-thinking nations. India is also considered to be a technologically advanced country as there are numerous Indian-based IT companies who are actually providing IT services worldwide. In order to collect data for the research work, a survey questionnaire was prepared to determine whether or not Indian organizations are aware of the concepts of sustainability, green IT and cloud computing; and if they are, their level or degree of awareness. Non-probability sampling techniques were used to select the samples; in this case, the snowball technique was used. For the purposes of analysis, the Factor Analysis indicated that Indian organizations are aware of these concepts in their IT operations. They are also a little aware of the benefits of implementing these trends, and the potential harm to their organization by not adopting green IT and IT sustainability as security and privacy are major concerns from the Indian organizations' perspective.

Finally, this chapter aims to examine the level of awareness of Indian organizations' – public and private – about sustainability and cloud computing. This chapter is organized as follows: 1) Introduction;

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