

# Information and Communication Technology in Sustainable Reporting towards paradigm shift in Business

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## Abstract

Information and Communication Technology is the combination of Information Technology and Communication Technology that are used to handle the telecommunication, intelligent management systems and monitoring for processing and presenting data. Sustainable reporting is the digital reporting mechanism with utmost accountability, transparency and authenticity to overcome major challenges of scrutiny, consistency of information in the corporate world. The survey was deployed to assess the abundant Information and Communication Technology in sustainable reporting towards paradigm shift in business. The paradigm shift is a major change in how some process is accomplished. A paradigm shift can happen when new technology is introduced that radically alters the production process of a good. Taking these inputs and purposeful contemplation on the part of the researcher the constructs necessary for the questionnaire were formulated. The respondents were asked to rate the level of importance of each question on five-point Likert scales. The study helped to identify the recent trends, requirements and challenges faced by professionals especially in Indian Corporate Sectors when interacting with the ICT in Sustainable Reporting and attract wider stakeholder groups.

**Key Words:** Information Technology, Communication Technology, Information and Communication Technology, Sustainable Reporting and Paradigm shift in Business

## 1. INTRODUCTION

A paradigm shift occurs whenever there's a significant change in the way an individual or a group perceives something and the old paradigm is replaced by a new way of thinking, or a new belief. Individuals have their own personal paradigms or lenses through which they view the world. Corporations and other organizations have corporate paradigms regarding the methods by which they believe their goals will best be accomplished. The narrative in the beginning of the lesson about your favorite fruit is a simple example of a personal paradigm shift. Sustainable Reporting has become an important part of Corporate Sustainability. The international management experts identified the deficiency of transparency in the existing business practices for corporate sustainable reporting. But maintaining transparency in corporate reporting is the route of building ingenuous relationship among stakeholders. In the present situation, corporate sectors maintain corporate governance that ensures maximum transparency in corporate reporting regarding environmental performance, social performance

and governance performance. The overall system development in the field of corporate sustainability and sustainable reporting reflect the reputation of corporate sector and its status in global business operations.

## 2. REVIEW OF LITERATURE

The several authors and scholars have given their own view related to **Information and Communication Technology, Sustainable Reporting and Paradigm shift in Business**. The review of literature contains the details about few research papers and articles.

**C. Hedberg and F. Malmborg (2003)**. Described in the article “**The Global Reporting Initiative and corporate sustainability reporting in Swedish companies**”, that the sustainable CSR reporting become the mandatory responsibility for the corporate sectors as like the quality standardization of products or services. The authorized organizations verify the quality and reliability of CSR reporting system and certify the same.

**Kenneth L. Deavers. (1997)** explained in the article “**Outsourcing is used to describe different kinds of corporate action**” that all subcontracting relationships between firms, all foreign production by U.S. firms, hiring of working in non-traditional jobs such as contract workers, and temporary or part time workers, etc. Outsourcing is assumed to be a corporate search for cost saving – typically, a search for lower labour cost. Outsourcing need not be primarily cost driven and certainly not labour cost driven. Rather, a number of factors are likely to be operating simultaneously, the cumulative effect of activities that firms choose to perform ‘outside’ rather than ‘inside’.

**Lina Sonne (2012)**. Described in the article “**Innovative initiatives supporting inclusive innovation in India: Social business incubation and micro venture capital**”, that the innovative entrepreneurs are facing a financing gap but in India pioneering finance initiatives have been emerging to bridge that gap. These organisations are forming an ecosystem of support for inclusive innovative entrepreneurs”. The certification helps to communicate the stakeholders in the right way and builds the standard industrial relations. The corporate sectors should take initiative to follow the standard system of preparing and maintaining the sustainable reporting for the long run survival of the organization with good response from society.

**G Aras and D Crowther (2009)**. describes in the research article “**Corporate Sustainability Reporting: A Study in Disingenuity?**”, that the corporate sectors are bound to focus on corporate social responsibility. The systematic reporting of corporate social performance is an important role for an organization that differentiates its reputation from other organizations. The corporate sectors should consider the sustainable reporting system with reliable information.

### 3. RESEARCH GAP AND NEED FOR THE STUDY

Sustainability and Paradigm shift in Business related activities are dynamic in nature because the concept of ICT in Sustainable Reporting keeps on changing with changes in situation and size of the organizations. In view of dynamic in nature it is required to study the theme in the practical world to arrive at the hidden patterns. Other prominent reasons for taking up the present study is the lack of a comprehensive study of ICT in Sustainable Reporting towards Paradigm shift in Business in Indian context as depicted by the literature review, and therefore, the research gap.

### 4. OBJECTIVES OF THE STUDY

*With the curiosity of the researcher and the consideration of research title the following objectives were derived:*

- To identify the roles of ICT in Effective Sustainable Reporting with respect to Indian Corporate Sectors.
- To find out the requirements of ICT towards Paradigm shift in Business.
- To identify the recent trends of Information and Communication Technology.
- Based on the study, to list the relevant suggestions.

### 5. SCOPE OF THE STUDY

*The scope of the study is outlined through the following points:*

- (i) The scope of the study is limited to the company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more during any financial year.
- (ii) The research was restricted to the organized sector and the concept of “Corporate Social Responsibility” for Paradigm shift in Business.
- (iii) Due to level of complexities involved and thereby the feasibility of extending the findings, the scope of the present study is limited to large organizations with employees’ strength more than 2,000 and which are in existence for at least three years.
- (iv) The scope of the study pertains to generally applicable i.e., roles of ICT, requirements of ICT and trends of ICT that influence in Sustainable Reporting towards Paradigm shift in Business.

### 6. LIMITATIONS OF THE STUDY

*The research study is having few limitations which are given bellow:*

- (i) The study is restricted to the Indian Company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more during any financial year but can be considered MNCs also.
- (ii) The data collection is restricted to five big cities like Bangalore, Tumkur, Davangere, Hobli, Mysore and Mangalore but can be selected some other cities.

(iii) It is limited to Indian public and private organizations.

(iv) The present study is constrained by the limitation of time and availability of suitable responses.

## 7. RESEARCH METHODOLOGY

The present study makes an attempt to identify the Information and Communication Technology in Sustainable Reporting towards Paradigm shift in Business along with the requirements and the recent trends of ICT. The requisite data is collected both from primary and secondary sources. A set of questionnaire and consequent semi-structured interview schedules were employed to collect the primary data. The secondary data sources included web literature, journals, periodicals and newspaper reports to get a picture about the prevailing context. The CV analysis and frequency distribution methods were employed for data analysis and finally interpretations taken place with the consideration of summary of results.

## 8. DATA ANALYSIS

The collected data were arranged systematically with required tables. The arranged data were analyzed by employing the statistical techniques of CV Analysis and frequency of distribution to obtain the hidden patterns with respect to the ICT in Sustainable Reporting for achieving objectives of the research.

### 8.1 Analyzing the Level of Difficulties in changing the “Roles of ICT” that influence the Sustainable Reporting towards Paradigm shift in Business.

The analysis related to the levels of difficulties in changing the role of ICT in Sustainable Reporting from the view point of concerned stakeholders. The degree of difficulties levels encountered in changing the existing behaviour of Regular Employees, Decision-makers and Other Stakeholders (Shareholders, Suppliers, Dealers and Customers).

More CV value is the indication of more difficulties to change. If the CV value is less than 0.25, then there is no significant level of difficulties in changing the roles of ICT that influence the Effective Sustainable Reporting.

In case the CV value is more than 0.25, then there is a significant level of difficulties in changing the roles of ICT that influence the Sustainable Reporting.

The CV values of various roles of ICT i.e., Disclose Information about Corporate Performance, Follow the Global Reporting Initiative Standards, Intelligent Management Systems, Sequential Managerial Functions were less than 0.25 in the Regular Employees point of view. The results from Table No. 1 indicate there is no significant level of difficulties in changing the roles of ICT that influence the Effective Sustainable Reporting.

On the other hand, the CV values of various roles of ICT i.e., Response to Corporate Social Responsibility, Network-based Communication, Improving Resource Efficiency, Operating Transparency System were more than 0.25 in the Regular Employees point of view. The results from Table No. 1 indicate there is significant level of difficulties in changing the roles of ICT that influence the Effective Sustainable Reporting.

The CV values of all roles of ICT i.e., Disclose Information about Corporate Performance, Follow the Global Reporting Initiative Standards, Response to Corporate Social Responsibility, Intelligent Management Systems, Network-based Communication, Improving Resource Efficiency, Operating Transparency System and Sequential Managerial Functions are less than 0.25 in the Decision-makers point of view. The results from Table No. 1 indicate there is no significant level of difficulties in changing the roles of ICT that influence the Effective Sustainable Reporting.

The CV values of all roles of ICT i.e., Disclose Information about Corporate Performance, Follow the Global Reporting Initiative Standards, Response to Corporate Social Responsibility, Intelligent Management Systems, Network-based Communication, Improving Resource Efficiency, Operating Transparency System and Sequential Managerial Functions are less than 0.25 in the Other Stakeholders point of view. The results from Table 1 indicate there is no significant level of difficulties in changing the roles of ICT that influence the Effective Sustainable Reporting.

**Table No. 1**

**Comparison of Basic Statistics among Different Category of Respondents the “Roles of ICT” that influence the Effective Sustainable Reporting**

FACTOR	Regular Employees (N <sub>1</sub> = 400)			Decision-makers (N <sub>2</sub> = 200)			Other Stakeholders (N <sub>3</sub> = 200)		
	Mean	SD	CV	Mean	SD	CV	Mean	SD	CV
Disclose Information about Corporate Performance	17.475	3.214	0.184	19.645	1.962	0.101	18.990	1.962	0.103
Follow the Global Reporting Initiative Standards	12.378	1.404	0.113	14.065	2.435	0.173	13.435	1.096	0.082
Response to Corporate Social Responsibility	5.333	1.439	0.270	6.205	0.405	0.065	5.855	1.082	0.185
Intelligent Management Systems	6.100	1.446	0.237	5.780	0.983	0.170	6.205	1.387	0.223
Network-based Communication	5.355	1.684	0.314	6.405	1.033	0.161	6.015	1.049	0.174
Improving Resource Efficiency	4.952	1.737	0.351	6.205	1.179	0.190	5.565	1.347	0.242
Operating Transparency System	6.055	2.114	0.349	6.395	0.490	0.077	6.895	1.029	0.149
Sequential Managerial Functions	5.805	1.206	0.208	5.620	0.787	0.140	5.920	0.942	0.159

Source: Compiled By the Researcher

## 8.2 Analyzing the level of difficulties in altering the “Requirements of ICT” that influence the Sustainable Reporting towards paradigm shift in business.

The analysis related to the levels of difficulties in changing the Requirements of ICT” that influence the Effective Sustainable Reporting from the view point of concerned stakeholders. The degree of difficulties levels encountered in changing the existing behaviour of Regular Employees, Decision-makers and Other Stakeholders. Table No. 2 indicates the comparison of basic statistics among different category of respondents with respect to the Requirements of ICT.

More CV value is the indication of more difficulties to change. If the CV value is less than 0.25, then there is no significant level of difficulties in changing the “Requirements of ICT” that influence the Effective Sustainable Reporting. In case the CV value is more than 0.25, then there is a significant level of difficulties in changing the “Requirements of ICT” that influence the Effective Sustainable Reporting. The CV values of Requirements of ICT i.e., ICT Infrastructure, Digital Television, Artificial intelligence, Robotics Support are more than 0.25 in the Regular Employees point of view. The results from Table No. 2 indicate there is significant level of difficulties in changing the “Requirements of ICT” that influence the Effective Sustainable Reporting. The CV values of Requirements of ICT i.e., ICT Infrastructure, Digital Television, Artificial intelligence, Robotics Support are less than 0.25 in the Decision-makers point of view. The results from Table No. 2 consider there is no significant level of difficulties in changing the “Requirements of ICT” that influence the Effective Sustainable Reporting. The CV values of Requirements of ICT i.e., ICT Infrastructure, Digital Television, Artificial intelligence, Robotics Support are less than 0.25 in the Other Stakeholders point of view. The results from Table No. 2 consider there is no significant level of difficulties in changing the “Requirements of ICT” that influence the Effective Sustainable Reporting.

**Table No. 2**

**Comparison of Basic Statistics among Different Category of Respondents related to level of difficulties in altering the “Requirements of ICT” that influence the Sustainable Reporting**

FACTOR	Regular Employees (N <sub>1</sub> = 400)			Decision-makers (N <sub>2</sub> = 200)			Other Stakeholders (N <sub>3</sub> = 200)		
	Mean	SD	CV	Mean	SD	CV	Mean	SD	CV
ICT Infrastructure	5.160	1.492	0.289	5.605	0.490	0.087	5.855	1.086	0.186
Digital Television	5.390	1.590	0.295	5.440	0.954	0.175	6.020	1.080	0.179
Artificial intelligence	5.502	1.538	0.280	5.790	0.799	0.138	6.010	1.012	0.168
Robotics Support	5.677	1.663	0.293	6.285	0.910	0.145	6.395	0.918	0.144

Source: Compiled By the Researcher

### 8.3 Analyzing the level of difficulties in shifting the “Trends of ICT” that influence the Sustainable Reporting towards paradigm shift in business.

The analysis is based on the levels of difficulties in changing the Trends of ICT” that influence the Effective Sustainable Reporting from the view point of concerned stakeholders. Table No.3 points out the comparison of basic statistics among different category of respondents with respect to different trends of ICT. More CV value is the indication of more difficulties to change. If the CV value is less than 0.25, then there is no significant level of difficulties in changing the “Trends of ICT” that influence the Effective Sustainable Reporting. In case the CV value is more than 0.25, then there is significant level of difficulties in changing the “Trends of ICT” that influence the Effective Sustainable Reporting.

The CV values of trends of ICT i.e., Quality Related Trends and Quantity Related Trends are less than 0.25 in the Regular Employees point of view. The results from Table No. 3 indicate there is no significant level of difficulties in changing the “Trends of ICT” that influence the Effective Sustainable Reporting. The CV values of trends of ICT i.e., Quality Related Trends and Quantity Related Trends are less than 0.25 in the Decision-makers point of view. The results from Table No. 3 indicate there is no significant level of difficulties in changing the “Trends of ICT” that influence the Effective Sustainable Reporting. The CV values of trends of ICT i.e., Quality Related Trends and Quantity Related Trends are less than 0.25 in the Other Stakeholders point of view. The results from Table No. 3 indicate there is no significant level of difficulties in changing the “Trends of ICT” that influence the Effective Sustainable Reporting.

**Table No. 3**

**Comparison of Basic Statistics among Different Category of Respondents regarding the level of difficulties in shifting the “Trends of ICT” that influence the Effective Sustainable Reporting**

FACTOR	Regular Employees (N <sub>1</sub> = 400)			Decision-makers (N <sub>2</sub> = 200)			Other Stakeholders (N <sub>3</sub> = 200)		
	Mean	SD	CV	Mean	SD	CV	Mean	SD	CV
Quality Related Trends	10.1	1.356	0.134	9.605	1.363	0.142	10.6	1.276	0.120
Quantity Related Trends	8.33	2.046	0.246	8.605	0.49	0.057	9.16	1.005	0.110

Source: Compiled By the Researcher

## 9. INTERPRETATION

The interpretation is based on the summary of results and the attempt to explain the results by considering the practical realities, the previous works and the experts’ opinions.

9.1 The degree of difficulties levels encountered in changing the existing behaviour of Regular Employees was found higher than Decision-Makers with respect to Disclose Information about Corporate Performance, Response to Corporate Social Responsibility, and Intelligent Management Systems. The Decision-Makers believe that the Sustainable Reporting is an effective initiative for the

company strategy choice of sustainable success of an organization. But, Regular Employees don't believe the same because the decision-makers don't share the real time information with regular employees regarding the bright part of the sustainable reporting system.

The degree of difficulties levels come across in changing the existing behaviour of Regular Employees was found higher than Other Stakeholders (Shareholders, Suppliers, Dealers and Customers) with respect to Disclose Information about Corporate Performance, Response to Corporate Social Responsibility, and Intelligent Management Systems. The Other Stakeholders believe that effective sustainable reporting facilitates the transparency of business operations especially in CSR initiatives and the contribution towards society.

9.2 The degree of difficulties levels encountered in changing the existing behaviour of Regular Employees was found higher than Decision-Makers and Other Stakeholders (Shareholders, Suppliers, Dealers and Customers) with respect to ICT Infrastructure, Digital Television, Artificial intelligence, and Robotics Support. The Regular Employees feel that the fulfillment of ICT requirements are expensive and time consuming to provide proper training to the existing employees. But the decision-makers and other stakeholder think in another way. The proper system to establish and implement may take some time and consume initial investment but advantages for the longer period of time and build good reputation in the corporate world.

9.3 The result of the CV value indicates that the decision-makers don't feel the Quality Related Trend is the major Trends of ICT that influence the Effective Sustainable Reporting. Regular Employees and outsourced employees believe the positive impact regarding the direction of changes happening in an organization in terms of number of persons, distribution of manpower, the amount of money spent that resultant layers of workforce.

In case of Quantity Related Trend, the CV value with respect to the regular employees is greater than decision-makers and other stakeholders. The CV values indicate that the regular employees don't feel the Quantity related trend is the major factor. Decision-makers and outsourced employees believe that direction of changes happening in an organization in terms of changing employee composition, preferred methods of preparing sustainable reporting and the level of corporate reporting with a view to improve the outcomes of the organization.



## 10. FINDINGS, SUGGESTIONS AND CONCLUSION

### 10.1 FINDINGS

*The findings of the study are listed with respect to each individual objective of the study. The findings of the study are summarized in the following points:*

- Findings with respect to identify the ICT in Sustainable Reporting towards paradigm shift in business with respect to Indian Corporate Sectors are Disclose Information about Corporate Performance, Follow the Global Reporting Initiative Standards, Response to Corporate Social Responsibility, Intelligent Management Systems, Network-based Communication, Improving Resource Efficiency, Operating Transparency System and Sequential Managerial Functions.
- Findings regarding the requirements of ICT are ICT Infrastructure, Digital Television, Artificial intelligence, and Robotics Support.
- Findings related to the recent trends of ICT are Quality Related Trends and Quantity Related Trends.
- Findings with respect to the challenges faced by professionals when interacting with the roles of ICT are ICT and Human Capital, Sustainability and scale, Lack of knowledge, Resistance to change, Adequate Funding and Changing roles and norms.

### 10.2 SUGGESTIONS

*The important suggestions to the related corporate sectors which can be implemented in the broader area are as follows:*

- Preparing effective sustainable reporting is the collective and collaborative work of top level managerial personnel, regular employees and other stakeholders. With the consideration of the reputation of the organization, all the stakeholders should take initiative of implementing the Information and Communication Technology to maintain effective sustainable reporting with respect to CSR.
- Adequate funding is an important aspect for fulfilling the ICT requirements. The management should take responsibility of ensuring the required ICT Infrastructure, Digital Television, Artificial intelligence, and Robotics Support that guarantee the quality sustainable reporting system.
- The decision-makers should play major role with respect to the challenges faced by professionals when interacting with the roles of ICT such as ICT and Human Capital, Sustainability and scale, Lack of knowledge, Resistance to change, Adequate Funding and Changing roles and norms.

### 10.3 CONCLUSION

The Information and Communication Technology (ICT) plays a key role in its corporate strategic policy and sustainability of success through sustainable reporting. The creation of consistent methods of corporate performance builds the good reputation of the organization and simultaneous substitute of multiple factors which is in play and can be considered a prerequisite for success not only in decision making, but also with regard to corporate governance, comparison possibilities, and development of fruitful competitive environment.

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