



RESEARCH ARTICLE

Ethics and Impacts of Information and Communication Technology in E-Commerce

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Abstract— Electronic Commerce is method of exploit business through computer networks, internet and web application. It is possibly the most talented application of information technology witnessed in recent years. E-commerce helps to work as a mediator between front end and back end within the Internet like any client sitting on his computer as a front end for accessing all facilities of the internet like selling, purchasing, on-line admission, on-line form fill up etc and server processes these information in back end and return back desire results to the client.

This paper look at why measuring the collision of information and communication technology (ICT) is significant for expansion and why it is statistically difficult. Compute shock in any ground is difficult, but for ICT there are added difficulty because of its variety and quickly changing nature. A number of impact areas are recognized, and their associations explored, in the circumstance of their place in the social, economic and environmental realms. The consequence is a complex web of associations between individual impact areas, such as monetary growth and deficiency alleviation, and background factors, such as a country's level of education and government regulation.

I. INTRODUCTION AND INTANGIBLE FRAMEWORK

Information and communication technology (ICT) present assure of essentially changing the lives of much of the world's inhabitants. In its various forms, ICT influence many of the course of business and government, how those live, work and interact, and the excellence of the normal and build surroundings. The expansion of globally comparable ICT statistics is necessary for governments to be able to adequately intend, implement, monitor and evaluate ICT policies.

“A pragmatic global recital assessment and benchmarking (both qualitative and quantitative), during similar arithmetical indicator and research results, should be residential to follow up the execution of the objectives, goals and targets in the Plan of Action, taking into account different national circumstances.” (ITU, 2005) While much progress has been made in measuring ICT infrastructure and use, measurement of the impacts of ICT presents a number of statistical challenges.

Against this background, CSTD, at its thirteenth annual meeting in May 2010, identified measuring the impacts of ICT for development as a priority area of work and asked the UNCTAD secretariat to prepare this background paper on the topic. The paper is divided into four sections. The first provides some background to why it is important to measure the impacts of ICT and the challenges involved in that measurement. It also presents frameworks for conceptualizing and Measuring the impacts of ICT. The second section discusses different methodological approaches to measuring ICT impacts. The third section briefly reviews the empirical evidence in selected impact areas. The final section concludes and proposes a set of questions to consider E-commerce, in the popular sense, can be defined as:

The use of the Internet and the Web to conduct business transactions. A more technical definition would be: e-commerce is the method of buying and selling of goods and services on the Internet, especially within the World Wide Web. E-commerce differs from e-business in that no commercial transaction, an exchange of

value across organizational or individual boundaries, takes place in e-business. The process of e-commerce starts by sharing information between the supplier and prospective customers. Customers can browse the Web sites and select the product of their choice. Then they need to fill the form with relevant information such as personal and order details. This information is transferred from the customers Web browser to the Web server of the website. The data is then stored in the suppliers database and is used to perform other transactions for completing the sale. Payments can be made by using a credit card or a debit card. After the order processing, the supplier arranges for the product to be delivered.

II. IMPACTS OF ICT

- There are a number of different ICTs, with different impacts in different contexts and countries. They include goods, such as mobile phone handsets, and services, such as mobile telecommunications services, which change rapidly over time;
- Many ICTs are general-purpose technologies, which facilitate change and thereby have indirect impacts;
- It is difficult to determine what is meant by “impact”. For example, a model proposed by OECD for ICT impacts highlights the diversity of impacts, in terms of intensity, directness, scope, stage, timeframe and characterization (economic, social or environmental, positive or negative, intended or unintended, subjective or objective);
- Determining causality is difficult. There may be a demonstrable relationship and a positive correlation between dependent and independent variables. However, such a relationship cannot readily be proven to be causal.

III. INFORMATION AND COMMUNICATIONS TECHNOLOGY

The Information and Communications Technologies (ICT) defined, for the purposes, as a “diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information.” These technologies include computers, Internet, broad casting technologies (radio and television), and telephony. It is using as an extended the ethics of e-commerce based on software. Fig 1 shows how software helps to increase ethics of e-commerce.

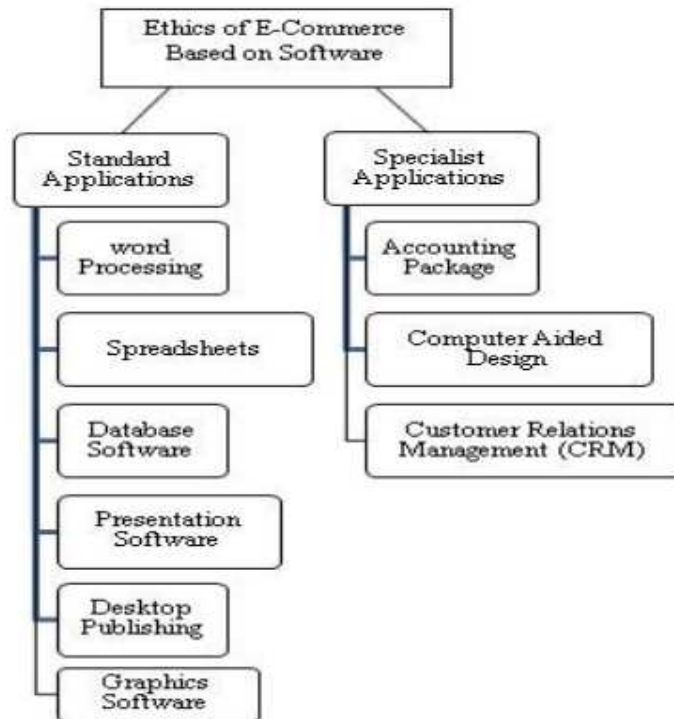


Fig 1 Ethics of E-commerce based on software

IV. IMPACTS OF ICT ARE DELIBERATE

4.1 Analytical techniques

Various analytical techniques have been used to measure the economic impacts of ICT at the Macroeconomic, sectoral and microeconomic (firm) level. The main techniques are econometric modeling using regression, growth accounting and input-output analysis. Econometric regression models have also been used in other areas of measurement.

The usual objective of an ICT impact analysis is to examine the relationship¹⁵ between ICT and productivity, economic growth or employment. The analysis usually includes other determinants such as labor, non-ICT capital and, for firm-level studies, factors such as firm characteristics, skills and innovation. Included in ICT is the ICT-producing sector, often split into manufacturing and services, and ICT diffusion, measured by ICT investment and/or use. Productivity measures relate a measure of output (gross output or value added) to one or more inputs. Economic growth is usually defined in terms of change in gross domestic product (GDP) or value added. Employment refers to jobs generated through the direct and indirect impacts of ICT.

4.2 Case study

Much of the work on measuring ICT impacts is based on case studies, often small scale and project based. They may be longitudinal, examining changes over time. They are generally very detailed and can involve a number of qualitative and/or quantitative data sources. They can take advantage of a number of existing, as well as new, data sources. Case studies can be used to explore causation within their scope. At the same time, case study findings are bound by the context in which they are conducted. While their results will not usually be generalized able beyond their context, they may indicate hypotheses or topics that could be assessed more broadly.

4.3 Impacts of ICT on privacy and security

There are a number of adverse impacts of ICT on the privacy and security of individuals and organizations. They include commercial losses from denial of service attacks, data loss through theft or corruption and disclosure of confidential data. The OECD model business and household surveys (OECD, 2009a) and Eurostat's 2010 model community surveys of Enterprises and households (Eurostat, 2010) included questions on the incidence of harmful security incidents. Such questions do not quantify the extent of impact, although they are useful in measuring how widespread the problems are. Far more serious potential negative impacts could arise because of the increasing reliance of critical infrastructure on ICT and the serious consequences of failure. Such impacts can affect societies and economies, as well as individual businesses (OECD, 2008c).

4.4 Impacts of ICT on education

There is considerable policy interest in the benefits that ICT can bring to education, which is a particular focus of the Millennium Development Goals and WSIS outcomes. The impact of ICT in education has been assessed in various studies, with mixed results (see the discussion in Institute for Statistics, 2009). For example, ICT may deliver significant educational benefits by providing tools for the teaching and learning process and by providing the skills needed in a society that is increasingly reliant on ICT. Conversely, students who enter such a world without those skills may be unable to fully participate and suffer from a digital-divide effect. The digital divide is likely to be a greater problem for developing countries, where access to ICT is generally lower than for OECD countries. Other possible benefits of ICT in education are improved attitudes to learning, development of teachers' technology skills and increased access of the community to adult education and literacy (OECD, 2010b; Kozma, 2005).

Empirical experiments that are highly controlled can help establish causal relationships between ICT use and educational outcomes (Kozma, 2005). In Vadodara, India, in 2000, 100 primary schools were each provided with four computers. A controlled experiment commenced in 2002–03 and ran for two years. Half the schools were randomly allocated with training and educational software. Students in those schools played educational computer games for two hours a week and scored significantly higher on mathematics tests than students in the control schools. The bottom group of students benefitted most, with girls and boys benefitting equally (Abhijit *et al.*, 2007). Controlled experiments from the United States, Kenya and Uganda also showed positive impacts on student learning arising from some types of use of computers in specific school subjects, while more general.

V. REMUNERATION OF E-COMMERCE IN ICT

5.1 General Benefits

- Greater efficiency throughout the school.
- Communication channels are increased through email, discussion groups and chat rooms.
- Regular use of e learning across different curriculum subjects can have a beneficial motivational influence on students' learning.

5.2 Benefits for Teachers

- E-learning facilitates sharing of resources, expertise and advice.

- Greater flexibility in when and where tasks are carried out.
- Access to up -to -date pupil and school data, anytime and anywhere.
- Enhancement of professional image projected to colleagues.

5.3 Benefits for Students

- Higher quality lessons through greater collaboration between teachers in planning and Preparing resources.
- Gains in understanding and analytical skills, including improvements in reading.
- Development of writing skills (including Spelling, grammar, punctuation, editing and re -drafting), also fluency, originality and elaboration.
- Flexibility of „anytime, anywhere“ access.
- Development of higher level learning styles.

5.4 Benefits For Parents

- Easier communication with teachers.
- Higher quality student reports – more legible, more detailed, better presented.
- Increased involvement in education for parents and, in some cases, improved self-esteem.
- Increased knowledge of children’s learning and capabilities, owing to increase in learning activity being situated in the home.
- Parents are more likely to be engaged in the School community.

VI. CONCLUSION

Principles are an important element in all aspects of computing, but prove to be a real difficulty in the expansion and liberation of electronic commerce systems is needed. In a world where so much information is transmitted and shared electronically by the help of information and communication technologies but is a more specific term that stresses the role of e-commerce and integration of telecommunications which enable user to access, stores necessary data and enhance the user life by digital life style.

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