

# Ict – productivity paradox essay sample

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## What is Productivity Paradox?

Solow computer paradox - Refers to the discrepancy between measures of Information Technology Investment and measures of output at the national level.

### Summary:

Despite the massive investments in Information Technology in the developed economies, the IT impact on productivity and business performance continues to be questioned.

The paper critically reviews this IT productivity paradox debate and finds that an important part of the uncertainty about the IT payoff relates to weaknesses in measurement and evaluation practice.

The approach shows how to link business and IT/IS strategies with prioritizing IT investments and by setting up interlinked measures, how IT costs and benefits may be evaluated and managed across the systems lifecycle, including consideration of potential uses of the external IT services market. An emphasis on a cultural change in evaluation from control through numbers to a focus on quality improvement offers one of the better routes out of the productivity paradox.

Within the Service Sector, delivered computing-power in the US economy has increased since 1970 yet productivity seems to have stagnated.

Within the Manufacturing Sector, Research showed that the reasonable estimates derived from the non-IT factors of production, there may indeed be something worrisome or special about IT. Trends:

The price of computing has dropped by half every 2-3 years.

There have been increasing levels of business investment in information technology equipment. Information processing continues to be the principal task undertaken by America's work force. Overall productivity has slowed significantly since the early 1970s and measured productivity growth has fallen. White collar productivity statistics have been essentially stagnant for 20 years.

Explanations for the Productivity Paradox:

#### Measurement Errors

The easiest explanation for the confusion about the productivity of information technology is simply that we are not properly measuring output and input of information. Measurement errors need not necessarily bias IT productivity if they exist in comparable magnitudes both before and after IT investments. Lags

Due to learning and adjustment, the benefits from IT can take several years to appear on the bottom line. New technologies may not have an immediate impact is a common one in business. In the future, not only should we reap the then-current benefits of the technology, but also enough additional benefits to make up for the extra costs we are currently incurring.

#### Redistribution

IT may be beneficial to individual firms but unproductive from the standpoint of the industry or the economy as a whole.

## Mismanagement

The investments are made nevertheless because the decision-makers aren't acting in the interests of the firm. Instead, they are increasing their slack building inefficient systems or using outdated criteria for decision-making.

## Way Forward:

1. Organizations must improve the data and measurement techniques.

Correcting for the potential lags in the impact of IT is conceptually easier.

The redistribution hypothesis can be examined in two ways. 2. By comparing various measures of a firm's performance with its competitors' IT spending.

## References:

A Review of IT and Productivity: A Review of the Literature - Erik Brynjolfsson and Shinkyu Yang