

Technological Opportunities and Threats

By: Nate G, Mona D, Shreyas J, Siddhu

Introduction

The technological environment presents constant threats and opportunities. Advances in technology and productivity improve productivity, however, the high costs of staying up to date with technological progresses can cause problems for businesses.

When Adopting New Technologies...

- **Costs**
 - Such as costs of purchase, installation, maintenance, depreciation, replacement and insurance of new technologies
- **Benefits**
 - Such as the expected gains in efficiency (as measured by productivity, flexibility, and communications) and profits
- **Human Relations**
 - Such as the impact of resistance to change and the impacts on morale, flexible working patterns and workforce planning
- **Recruitment and Training**
 - Such as the costs of training workers to adopt the new technologies, the number of people who need training and where to find the time to train people

Opportunities

- New working practice
 - Many people work from home
- Increased productivity/efficiency gains
 - Robots are faster and more efficient than humans
- Quicker product development
 - CAD and CAM technology allow for production of prototypes
- Job creation
 - Jobs for programmers, hardware, and software engineers
- New product/markets
 - New technology is the source of innovation
- Speed of access to information
- Reducing language and cultural barriers
 - Translations
- Reduced Costs
- Overcome Geographical Limitations

Examples of Technological Opportunities

- Skype/other videocall apps:
 - Allows for easy communication across long distances and eliminates the need for travel and face to face meetings, cuts time and costs for your business
- Monday.Com:
 - Team management tool that allows managers and employees to easily track, organize, and manage projects and other works that a company does. Reduces chance of costly mistakes and makes it easy to make deadlines
- Computer Aided Design&Manufacturing:
 - Allows for prototypes to be produced quickly and cheaply, accelerating the rate at which new designs are able to be put out

Opportunities Examples

- Starbucks recently started using AI in order to create a more personalized experience for their mobile app users
 - It allows for customers to get recommendations on products that they are likely to enjoy
 - This allows the company to be more efficient and also get closer to their customer base and see which drinks are potentially the most profitable

Threats

- Technology is not always reliable or secure
 - Susceptible to computer failure or hacked files and online crime
- Shorter product life cycles
 - Expensive to constantly upgrade equipment or software
- Job losses
 - Automation leads to unemployment
- Higher Costs
 - Product development, maintenance and employee training
- Price Transparency
 - Easily accessible price comparisons to other businesses
- Reduced Productivity
 - Employees being distracted by technology

Examples of Technological Threats

- Yahoo
 - In 2013, 3 billion yahoo accounts were breached, leaking names, date of birth, email addresses and passwords
 - The breaches knocked an estimated \$350 million off Yahoo's sale price
- Tesco
 - Employs around 221,000 workers in the UK
 - In 2010, Tesco opened the first UK supermarket with no checkout staff
 - Automation can lead to unemployment and loss of jobs

Conclusion

Overall, technology has proved to create advancements and present new opportunities to the world, but with these come with a large amount of threats.