**Week 7 Assignment**

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**Chapter 7 Study Questions**

**1)** The productivity paradox refers to the observation by Erik Brynjolfsson in 1991 that despite significant investments in information technology (IT), there was no noticeable improvement in business productivity. This paradox suggests a mismatch between IT investment and measurable productivity gains due to factors like mismeasurement, adjustment lags, profit redistribution, and mismanagement of IT (Brynjolfsson, 1994).

**2)** Nicholas Carr, in his 2003 article "IT Doesn't Matter," argued that information technology (IT) had become a commodity and no longer provided a unique competitive advantage to businesses. He compared IT to utilities like electricity, which are essential but do not offer a competitive edge because they are widely available and standardized. Carr suggested that instead of aggressively investing in IT for strategic advantage, companies should focus on cost management, risk reduction, and ensuring that IT systems are reliable and secure. He contended that the real value of IT lies in its ability to support business operations rather than drive innovation or differentiation (Carr, 2003).

**3)** The 2008 study by Brynjolfsson and McAfee differed from previous studies by providing evidence that IT could create a competitive advantage when implemented strategically. They found that IT investments could sharpen differences between companies, with successful firms using IT to innovate and improve processes. This contrasted with earlier studies that often showed no clear link between IT investment and increased productivity or profitability. However, the study echoed a consistent theme from earlier research: IT alone is insufficient for success. Effective management, process innovation, and the ability to exploit IT capabilities were crucial in realizing the benefits of IT. This study highlighted that while IT can be a powerful tool, its value is maximized only when combined with strategic management and innovative practices (Brynjolfsson & Hitt, 1998).

**4)** A business has a competitive advantage when it can sustain profits higher than the industry average. This can be achieved through cost advantage, offering products or services at a lower cost, or differentiation advantage, offering unique products or services valued by customers (Bourgeois, 2019).

**5)** Primary activities directly create a product or service, including inbound logistics, operations, outbound logistics, sales/marketing, and service. Support activities, which assist primary activities, include firm infrastructure, human resource management, technology development, and procurement (Bourgeois, 2019).

**6)** The Internet has generally lowered industry profitability by increasing competition and reducing barriers to entry. The true winners are the customers, who benefit from increased choices and lower prices (Bourgeois, 2019).

**7)** Electronic Data Interchange (EDI) allows computer-to-computer exchange of business documents in a standard electronic format between business partners (Bourgeois, 2019). This integration streamlines processes, reducing manual efforts and improving efficiency in the supply chain.

**8)** In semi-structured decision-making, most of the information needed for a decision is available, but there is still a significant need for human judgment and considering outside influences (Bourgeois, 2019). For example, when creating a new marketing plan for a product, one needs to gather market research, analyze competitors, project sales, and gather customer feedback. Decision support systems (DSS) can assist by analyzing this information and providing suggestions, which aids decision-makers in forming more informed choices. However, the final decision requires human discernment to factor in things like current market trends and the product's position in the market (Segal, 2024).

**9)** A collaborative information system enables multiple users to work together on shared documents or projects, regardless of physical location. Examples include Google Drive for document sharing, Cisco WebEx for video conferencing, and Microsoft SharePoint for team collaboration (Bourgeois, 2019).

**10)** IT can enhance competitive advantage by sharpening company differences based on their ability to innovate and manage IT effectively. Successful IT implementation requires good management, fostering innovation, and leveraging IT for process improvements, which can lead to significant competitive benefits (McAfee & Brynjolfsson, 2008).

**Exercise 1)** Nicholas Carr, in his piece "IT Doesn’t Matter," argues that as technology becomes more accessible and standard, its ability to give businesses a unique advantage dwindles, making it just another necessity. This idea can be seen in discussions around PC vs. Mac, OpenOffice vs. Microsoft Office, and Microsoft PowerPoint vs. Tableau (Carr, 2003).

For the PC vs. Mac debate, according to Carr's thinking, the choice is more about personal taste and budget since both offer roughly the same capabilities to a typical user. Despite Macs having better design and user experiences, PCs might win in terms of flexibility and price. Carr would see this as evidence that neither provides a clear competitive edge.

In comparing OpenOffice with Microsoft Office, Carr's viewpoint highlights a similar scenario: both provide critical tools for office work. Since OpenOffice is free and open-source, it could be the smarter financial choice. It represents Carr's idea that technology, offering similar services, becomes a market commodity where cost might be the deciding factor (Carr, 2003).

Looking at Microsoft PowerPoint and Tableau, the comparison gets more complex. PowerPoint is widely used for presentations, while Tableau focuses on sophisticated data visualization. Although Tableau might offer an advantage in data-heavy contexts, Carr cautions that its competitive edge could fade as such tools become more widespread and cheaper. Hence, companies should concentrate on strategically using these tools rather than relying on them for an ongoing advantage (Carr, 2003).

**Exercise 2)** I recently read an article that discussed Nicholas Carr's changing viewpoints on the importance of information technology (IT) in enhancing business competition. The article referenced Carr's influential 2003 essay, "IT Doesn't Matter," which initiated a widespread discussion among IT professionals and business strategists. In the essay, Carr argued that IT had evolved into a commodity, similar to essential utilities like electricity. As such, it provided limited opportunities for businesses to distinguish themselves strategically.

However, the article pointed to Carr's perspective shifting over time. It mentioned that Carr now acknowledges the significant transformative potential of IT, particularly with advancements in technologies such as cloud computing, big data analytics, and service-oriented architectures. These technological improvements have transformed IT from a cost to a critical driver of innovation and business transformation (Castro-Leon et al., 2013).

At present, Carr stresses the importance of integrating IT into organizational strategies to maximize its benefits. He suggests that businesses use data analytics for better decision-making, adopt scalable and flexible cloud computing solutions, and promote practices such as Bring Your Device (BYOD) to improve workforce productivity. Despite recognizing the commoditization of basic IT infrastructure, Carr emphasizes the vital role strategic IT management plays in ensuring a company's success through ongoing innovation and adaptation to technological changes (Castro-Leon et al., 2013).

In essence, the article illustrates Nicholas Carr's progression from skepticism about the strategic value of IT to understanding its role as a driver of innovation and competitive advantage in the current dynamic business environment.

**Exercise 3)** In the opinion of many, WebEx stands out as a powerful tool for improving teamwork due to its comprehensive features. One of the key strengths of WebEx is its video conferencing function, praised for enabling high-quality meetings with multiple participants, featuring screen sharing and recording capabilities (Wisdom, 2024). This allows for seamless communication and collaborative efforts across different locations. Further, WebEx is well integrated with widely used productivity software like Microsoft Office and Google Workspace, offering the advantage of working on documents directly within the meeting platform.

I use both Skype and Google Hangouts as well, but personally, I find that WebEx excels in offering enterprise-grade features like advanced security controls, customizable meeting settings, and detailed analytics. These features are crucial for businesses looking to ensure secure and efficient collaboration across large teams or sensitive projects.

Moreover, WebEx's scalability is highlighted as a significant benefit, with the platform supporting meetings that include thousands of participants (Matthews-El, 2024). This makes it ideal for hosting large-scale webinars or presentations. In contrast, while Skype and Google Hangouts are considered suitable for smaller teams or less formal communications due to their simpler interfaces and ease of use, they might not meet the more complex demands of business collaborations regarding functionality and security (Baldikov, 2024).

In the end, WebEx's combination of enterprise-level features, seamless integration with other tools, and its scalability positions it as a preferred choice for organizations that prioritize secure and effective collaborative environments.

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