

# Technology Adoption in Troubled Times: A Cloud Computing Case Study

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## EXECUTIVE SUMMARY

*Timely Technologies Corp. (TT) is a \$200+ million revenue company that has not yet emerged from the great recession of 2008. Once a \$750 million revenue company with nearly 5,000 employees (including over 100 IT professionals), the company has been forced to cut its workforce to just over 2,000 employees. Reductions have included all administrative functions, some production capacity and its IT department. Throughout a long series of quarterly losses, the company has constantly been challenged to weigh accounting and other information needs against costs of gathering that information as it identifies the most efficient cost reductions. This case explains how basic economic factors have impacted the company's choices with regard to IT and its access to accounting and other operating data.*

*Keywords: Accounting, Cloud Computing, Information Systems, Reductions, Technology Adoption*

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## ORGANIZATION BACKGROUND

### History

Timely Technologies started business in the early 1960's in a small town in the United States to attempt to provide a very specific electronic part for the space program. The company's founders had a passion for technology, science, and research, and a strong belief in customer service as a route to success. Even though their

initial idea for the space program component did not pan out, they continued their research into the burgeoning computer industry and eventually received an order from Univac for printed circuit boards.

Throughout the 1970's they continued to expand to many other technology components, including parts of computer disk drives, circuit boards, medical equipment, electronic testing equipment, and many other high-tech components. Their reputation for quality and

customer service grew as they continued to expand and meet the demands of both large and small customers. In the late 1970's, they began to focus on disk drive components, and with the explosion of personal computers in the 1980's the company continued to expand, with manufacturing facilities in several towns in the U.S. and sales offices in several Asian countries.

Production facilities are located in Asia and the U.S., and customers are located in Asia and Europe. During the 1990's two new plants were opened in the upper Midwest, and 80% of the employees are there. They also have an Asian distribution center with four branches, and technical support centers for customers in Asia were opened to meet quickly escalating demands and changes in technology. They continued to focus on heads for disk drives and business was booming. Additionally, Timely Technologies has dabbled in other products in an attempt to take advantage of their culture of quality, engineering expertise, and leading-edge measurement technology. New products developed have not become broadly successful, however.

The company's main product line at this time is one specific component of disk drive assemblies used in personal computers. The industry is very specialized and consequently the company's 10-k shows only 4 competitors. Whereas it was the industry's largest producer of its component as recently as 2008, the company currently maintains a market share of 12% (according to its 2012 10-k) and has had only one profitable quarter in the last 20 quarters. See Appendix A for detailed financial information.

The company has four major customers that account for 99% of sales, each of whom is a major producer of parts for personal computers. This concentration in sales contributes to the company's precarious economic situation.

## Organizational Structure

Timely Technologies has a very traditional organizational structure, with a President/CEO serving under a Board Chairman, and three Vice Presidents. Each VP is supported by directors

in their respective areas. There is a Director of Accounting and a Director of IT under the VP/CFO, and all Accounting employees, as well as the vast majority of the employees in IT, are at the headquarters in the U.S. (There are minimal helpdesk employees at the branch locations for onsite technology needs.) Both Human Relations and Operations have their own VP at the headquarters, and directors at each of the branch locations. See Appendix B for detailed organizational information.

Operational information is captured in the organization's many information systems, to be used in decision-making at all levels, but IT is considered a necessary function, rather than a source of strategic advantage. This is evidenced by the fact that their current ERP system, Mac-Pac, is so old that it is no longer supported by the vendor and is not well-integrated with the organization's other systems such as human resources or accounting. In fact, the IT department has constantly been under pressure since the economic downturn began for the company. In 2008 the department had over 100 employees. Currently, the IT department houses 47 employees to facilitate the various needs of the organization, including programming, helpdesk support, and networking. This makes their ratio of IT employees to users approximately 1 to 43, indicating that they may be stretched quite thinly to support operations in such widespread locations. For a company with approximately 2100 employees, this ratio generally ranges from a low of 1:11 to a high of 1:45 (Workforce, 2011).

## SETTING THE STAGE

The drivers of technology adoption decisions have been studied for many years. There are several pertinent models regarding decisions at the individual level: (TPB, Theory of Planned Behavior (Ajzen, 1991); TAM, Technology Acceptance Model (Davis, 1989); and UTAUT, Unified Theory of Acceptance and Use of Technology (Venkatesh, Morris, Davis, & Davis, 2003). Prominent models for decisions at the

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