GRADUATE PROJECT

for

Master of Computer Science
Division of Computer Science
College of Science and Technology

TEXAS A&M UNIVERSITY - CORPUS CHRISTI
MANAGEMENT INFORMATION SYSTEM

for

O'STED INTERNATIONAL HI-TECH CORPORATION

OMIS

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ABSTRACT

The purpose of this project was to design and implement a management information system based on a relational database concept for the O'Sted International Hi-Tech Corporation in Taiwan, the Republic of China. The system provides a windowing environment with user friendly features for the management procedures related to customers, customer profiles, products, orders, inventory, suppliers and banking profiles. The project also provides a framework to ensure that the users employ sound business procedures.
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BACKGROUND AND RATIONALE

The O’Sted International Hi-Tech Corporation was founded in May 1990, in Taipei, Taiwan, R.O.C. This company’s operation focuses on international trading and has a working capital of $900,000.00 annually. At present, the company’s headquarters are in Taiwan and employs ten people. Since May 1994, they have opened two branch offices located in Hong Kong and Singapore. Their current managing director is Mr. Richard Chen.

In 1990, I helped to develop Mr. Chen’s business operation. I worked for him to create operational business procedures and to develop a marketing management plan for his firm. As the company grew quickly, Mr. Chen asked me to develop a computer-based management system to handle the firm’s trading procedures and enhance the overall operation.

**Overall Operations:** O’Sted International Company operations include regular import/export and drop shipment trading. The company serves as a distributor for three manufacturers which are Media Service International in France, Y-E Data in Japan, and Accurite in the United States. Their import products are: floppy disk drive analyzers, certifiers, industrial 600 rpm drivers, alignment diskettes, and testing equipment. In addition, the company also resells notebook computers, floppy diskettes, and hard drives. Their exports are delivered primarily to Australia and various Asian countries.
Internal Operations: The O'Sted business practices involve marketing, sales, shipping, L/C (Letter of Credit), customer, and supplier management. Their headquarters has three Intel 386-based personal computers and four notebook computers. These computers are only involved in word processing, spreadsheets, and marketing presentations. A simple hierarchical database model is used to maintain their customer records in DOS and a windowing environment. The software products they use are WordPerfect, Microsoft Word, Excel, Lotus 1-2-3, dBASE, and other presentation packages.

In early 1994, the company started to expand rapidly and found they could not address all of their needs. They realized that their current software, hardware, and trading system were inadequate. One of the firm's weaknesses is that their management of customer, supplier, and order information still uses manual operations. Data is manually filed in storage cabinets and retrieved as needed. Banking information and L/C data are maintained with Lotus 1-2-3 software. The company does not take advantage of their dBASE software because the version on hand is too old and not user friendly. Also, their logical database system has not been designed. Additionally, the company's major demands are based on customer profiles and banking information. The reason for these demands is that their customers are computer or peripheral manufacturers who frequently change their production lines, as computer products have a short life cycle. The company needs to have an appropriate system so they can track their customers' production information in order to offer proper testing equipment and peripherals to their customers.
Modifications to Operations: In reviewing their existing operations, I determined there was no logical database model, and their manual tracking system was inefficient for their current needs. As a result, it was my intention to develop a more efficient information system which would raise their productivity. I incorporated a relational database model and used a graphical user interface feature to ensure the success of this project. The project focused sharply on the development of a complete information system which encompassed hardware, software, and system analysis.

This graduate project facilitated my understanding of a business system design in a real life application. In this way, I was able to improve the firm's overall operation so it became much more efficient.