

Chapter 1¹

Enterprise Data Mining: A Review and Research Directions

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Abstract: Manufacturing enterprise systems and service enterprise systems carry out the bulk of economic activities in any country and in the increasingly connected world. Enterprise data are necessary to ensure that each manufacturing or service enterprise system is run efficiently and effectively. As it becomes easier to capture and fairly inexpensive to store, digitized data gradually overwhelms our ability to analyze in order to turn them into useful information for decision making. The rise of data mining and knowledge discovery as an interdisciplinary field for uncovering hidden and useful knowledge from large volumes of data stored in a database or data warehouse is very promising in many areas, including enterprise systems. Over the last decade, numerous studies have been carried out to investigate how enterprise data could be mined to generate useful models and knowledge for running the business more efficiently and effectively. This chapter intends to provide a comprehensive overview of previous studies on enterprise data mining. To give some idea about where the research is heading, some on-going research programs and future research directions are also highlighted at the end of the chapter.

Key Words: Data mining, Knowledge discovery from enterprise data, Enterprise data mining.

¹ Liao, T.W. and E. Triantaphyllou, (Eds.), **Recent Advances in Data Mining of Enterprise Data**, *World Scientific*, Singapore, pp. 1-109, 2007.