Detecting counterfeit products using supply chain event mining

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Abstract—**Counterfeiting is a growing problem all over the world, threatening the health of consumers and lead to financial losses for legally run business. By detecting counterfeit products before they are distributed to the end-users, the problem can be prevented. In this study, we propose an alternative frequent pattern mining algorithm to discover licit supply chain patterns from trace records and a classification algorithm to distinguish counterfeit products with these licit supply chain patterns. The presented algorithms are studied with computer simulations that model the flow of genuine and counterfeit products in a comprehensive supply chain. The results suggest that these algorithms could be used to automatically detect suspicious products.**

Ho Sung Lee received his B.S. degree in computer engineering from Dongguk University, Korea in 2005. Since 2005, he has been involved in several research projects on software platform (such as RFID Middleware System, Mobile Software Platform, Software System Design) which integrates legacy applications with various data resources including RFID tags and Sensor Node. In 2010, he joined as a member of engineering and research in ETRI, Korea. His research interests are in the area of data mining and knowledge discovery.

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