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摘要(中)	<p>在面對今日商業市場日趨激烈的競爭環境當中，如何透過龐大資料庫的分析，有效地建構出客戶消費行為模式，已成為現代資訊管理中重要的課題之一，而資料挖掘(Data Mining)對於商業行為中目標行銷(Target Marketing)在資料的分析與模型的建立上就是一種不錯的輔助工具；目前本研究即是利用關聯式法則(Association Rules)，針對零售賣場的交易資料庫，來討論如何在零售業大量的商品種類中，有效地區隔出不同的強勢產品組合，並且除了挖掘產品組合外，如何從不同的產品組合中分析出客戶的特質與分布模型，也是本研究的重點所在。本研究一共可以分成三個主要部分來討論；第一部份是針對以往關聯式法則在 Apriori-like</p>

	<p>演算法上的研究，通常是先產生龐大的候選物項集合(Candidate Itemsets)，並經過頻繁的資料庫存取，才能找出適當的強物項集合(Large Itemsets)；所以在本研究是將以往的架構予以調整，發展出一套更有效率的物項建構方式，它有三個主要特點：(1) 只需經過兩次的資料庫存取動作，並將龐大的交易資料縮小，放入較有效率的資料結構中；(2) 大幅減少候選物項集的產生，避免了以往不必要的組合產生法，如此將可以更有效率且較快的方式來搜尋出強物項集合；(3) 除了以發生頻率為判別因素外，另加入商品的購買個數及利潤來考量。第二部分，針對交易導向法則建立時的一般問題予以探討，例如關聯方向是否一致、Piatesky-Shapiro's Argument 等，在此步驟將利用 PR Model (Probability Ratio Model)來取代以往 Confidence 的架構；第三部分，將討論商品交易法則與基本客戶資料的關聯建立，並利用概念階層(Concept Hierarchies)的方式，將被關聯的客戶資料予以一般化，找出在商品組合的情況下，客戶群的分布情形；如此將可在最後找出不同商品組合所對映的目標客戶群。</p>
<p>摘要 (英)</p>	<p>In this research, we use the knowledge about target marketing to discover customer profiles among transactions in a market basket database, and we try to propose a new data mining framework for knowledge discovery from databases which addresses the techniques of mining association rules. Our first goal is to present a new itemsets-generation algorithm and different measures which are useful alternatives to the commonly used support measure, and we also try to use a Probability Model to replace the traditional confidence measure. This method combines the idea about Apriori algorithm and some interesting measures for discovering association rules between items in a market transaction database. Secondly, we try to discover customer profiles from association rules that we have mined. We show how characterized attributes about customers are generalized according to concept hierarchies. The AOG algorithm for attribute oriented generalization is used here for improving the representation of the complex customer information. In our framework, moreover, we want to not only discover the customers' buying patterns for products, but also to discover customer profiles by partitioning customers into distinct classes.</p>
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