

醫療資訊的商業智慧分析

陳建勳

長榮大學資訊管理系

E-mail: jxchen@mail.cjcu.edu.tw

摘要

在目前的全民健保制度下，醫療院所無不思考能運用資訊科技來增加競爭力。其中，將醫療院所服務所產生的資料加以彙整分析，並且及時的以適當的格式呈現給決策人員做為決策的參考是目前刻不容緩工作。因為唯有如此決策人員才能更快速的掌握醫療院所經營績效的動態，能夠適時的做出比較好的決策。商業智慧(Business Intelligence, BI)分析就是以一組資訊技術來提供使用者解決企業問題所需的資訊，用以支援戰略性和策略性之決策。然而商業用的智慧分析軟體如 Hypersion、Congnos、Business Objects 等軟體系統都需要投入相當大的成本來建置，因此對中小型醫療院所造成使用的障礙，所以急需一個開放原始碼(open source)的解決方案。

本研究主要目的在於展示如何利用開放原始碼的 Pentaho Open BI 來對某些健保申報資料進行商業智慧分析。Pentaho open BI 是一個以流程為中心，解決(Solution)為框架的一個開放原始碼 BI 平台，其目的在於將一系列 Java 語言的資料分析工具如 JfreeReport、JfreeChart、JfreePivot、JSP Dashboard 等元件整合起來，構成一個完整的商務智慧解決方案。研究結果顯示，Pentaho BI 提供了各種多元化、視覺化且動態的資料呈現方式，決策人員將可以更有效快速的掌握資訊的重點，適時的做出適當的決策，以增加醫療院所的競爭力。

關鍵字：商業智慧分析、線上即時分析、儀表板分析、健保申報資料

Abstract

Under current National Health Insurance system, medical institutions are all thinking about how to apply information technology to increase competitiveness of hospitals. Among these technologies, Summarizing and analyzing data generated by hospitals and presenting this information timely to the decision-making stuff are a very important task. In such a way, the decision-makers can monitor institution's operating performance more quickly and so that they can make better decisions. Business intelligence analysis is a collection of information technology and it tries to solve business problems by providing users the information they need. However, the employment of the commercial BI such as Hypersion, Congnos needs to pay a considerable cost, which is an obstacle for the small and medium-sized medical institutions to use it. The purpose of this study is to demonstrate how to use open-source Pentaho Open BI in health insurance claim data to do business intelligence analysis. The results show Pentaho BI offers a variety of diverse, dynamic and visual presentation of information. The decision-makers can quickly and effectively grasp the key point of information, make the appropriate decision-making timely, so that can increase competitiveness of hospitals.

Keywords : Business intelligence, Online analytical processing, Dashboard, NHI claims.