Chapter VI
Decision Support Systems in Indian Organised Retail Sector

Ankush Sharma
Institute of Technology and Management, Navi Mumbai, India

Preeta Vyas
Indian Institute of Management, India

INTRODUCTION

Retailing as simply defined is the end process of supply chain management where there is a direct interaction with the end-user or the customer. Hence forth availability, assortment, display, proper handling of product plays a vital role in a competitive world.

Organised retail stores are characterized by large professionally managed format stores. They provide goods and services that appeal to customers, in an excellent ambience that is conducive for shopping, created based on consumer preference analysis, and offer good value as some of the benefits of large-scale purchases are passed on to consumers. In India, retail has its deep root since long back –and that is why India is being known as "Nation of Shopkeepers" with about 12 million retailers by 2003[1]. Organised retailing contributes 2 percent to the total Indian retail sector and expected to increase to 5 percent , by 2010. Retail sector forms 10-11 percent of GDP[2]. It is attractive in terms of investment, employment opportunity, and usage of technology. Indian organised retail industry was worth Rs. 13,000 crore in the year 2000 and was expected to grow by 30 per cent in the next five years touching Rs. 45,000 crore in 2005. [3] Food and personal care amounted to Rs. 1000

crore in 2000. Retailing is in a rapid state of change due to speedy technological developments, changing competitive positions, varying consumer behaviour as well as their expectations and liberalized regulatory environment. In such a scenario, information is crucial to plan and control profitable retail businesses and it can be an important source of competitive advantage so long as it is affordable and readily available. DSS (Decision Support Systems) which provide timely and accurate information can be viewed as an integrated entity providing management with the tools and information to assist their decision making.

In west, retail businesses have been the early adopters of Information Technology (IT). As there is a need to capture accurate information and make it available not only within the store but send it to warehouse, distributors and manufacturers in real time to manage the short shelf life of some goods in grocery sector and costs of inventory, varied DSS tools have been adopted by organised retailers. VMIs- vendor managed inventory systems, Scanner at the counters- point of sales systems, RFID- radio frequency identification, OLAP (online analytical processing), supply chain management systems, forecasting systems, CRM- customer relationship management systems, ERP- enterprise resource performance system etc. are the tools used by organized retailers in developed nations.

Most retailers collect and have access to huge amount of data, collected from day to day operations e.g. customer loyalty data, retail store sales and merchandise data, demographic projection data etc. Currently retailers are data rich but information poor. There is a great potential to develop systems that enable analysts and decision makers to manage, explore, analyze, synthesize and present data in a meaningful manner for decisions. Retail managers are in a constant need for right kind of information for making effective decisions. Modern advancements in ITES (Information Technology Enabled Services) and communication has permitted deployment of DSS (Decision Support Systems). DSS can be defined as computer based systems that help decision makers to confront ill structured problems through direct interaction with data and analysis models.[4]

DSS are basically characterized by three capabilities; dialogues, data and modeling- the emphasis of each varies from organization to organization. DSS includes a wide variety of systems, tools and technology that support decision making. EIS(electronic information system),ESS(Electronic support system),GIS(geographic information system),OLAP (online analytical processing),software agents, knowledge discovery system and group DSS – all can be considered as DSS .Broadly two major categories[5] of DSS namely enterprise wide DSS and desktop DSS exist . Enterprise wide DSS are linked to large data warehouses and serve several decision makers in a company whereas desktop single user DSS are small systems residing on individual manager's personal computer. Thus it is an interactive computerized system that gathers and presents data from a wide range of sources, typically for

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/decision-support-systems-indian-organized/22607

Related Content

E-Business Models in B2B: A Process-Based Categorization and Analysis of Business-to-Business Models
Mahesh Raisinghani, Turan Melemez, Lijie Zou, Chris Paslowski, Irma Kikvidze, Susanne Tahaand Klaus Simons (2008). *Electronic Commerce: Concepts, Methodologies, Tools, and Applications (pp. 1978-1996).*
www.irma-international.org/chapter/business-models-b2b/9598

Literature Review
Pauline Ratnasingam (2003). *Inter-Organizational Trust for Business to Business E-Commerce (pp. 22-70).*
www.irma-international.org/chapter/literature-review/24500

An Investigation into the Adoption of Electronic Commerce among Saudi Arabian SMEs
Sabah Abdullah Al-Somali, Roya Gholamiand Ben Clegg (2011). *Journal of Electronic Commerce in Organizations (pp. 41-65).*
www.irma-international.org/article/investigation-into-adoption-electronic-commerce/53197

Ten Years of SME E-Commerce Performance Factors and Metrics, 2011-2021
Miguel Salazar-Kovaleffand David Mauricio (2024). *Journal of Electronic Commerce in Organizations (pp. 1-27).*
www.irma-international.org/article/ten-years-of-sme-e-commerce-performance-factors-and-metrics-2011-2021/340940

Measuring Consumer Attitudes Towards Self-Service Technologies
Jesus Enrique Portillo Pizana (2009). *Information Communication Technologies and Globalization of Retailing Applications (pp. 72-108).*
www.irma-international.org/chapter/measuring-consumer-attitudes-towards-self/22605