CHAPTER 1
INTRODUCTION

Retailing consists of all activities involved in selling goods and services to consumers for their personal, family or household use. It covers sales of goods ranging from automobiles to apparel and food products and services ranging from hair cutting to air travel and computer education. Sales of goods to intermediaries who resell to retailers or sales to manufacturers are not considered a retail activity.

Retailing is one of the pillars of the economy in India and accounts for 35% of GDP [4]. Over 12 million outlets operate in the country and only 4% of them being larger than 500 sq ft. in size. The retail industry is divided into organized and unorganized sectors. Organized retailing refers to trading activities undertaken by licensed retailers, that is, those who are registered for sales tax, income tax etc. These include the corporate backed hypermarkets and retail chains, and also the privately owned large retail businesses. Unorganized retailing, on the other hand, refers to the traditional formats of low cost retailing, for example, the local kirana shop, owner manned general stores, convenience stores, hand cart and pavement vendors, etc. In India, a shopkeeper of such kind of shops is usually known as ‘dukandar’. Most Indian shopping takes place in open markets and million of independently grocery shops called ‘kirana’. Organized retail such as supermarkets accounts for just 4% of the market as of 2008 [78]. Regulations prevent most foreign investment in retailing. Moreover, over thirty regulations such as “signboard licenses” and “anti-hoarding measures” may have to be compiled before a store can open doors. There are taxes for moving goods to states from states and even within states. The
organized retail market is growing at 35 percent annually while growth for unorganized retail sector is pegged at only 6 percent.

In recent years, however, advances in computing capabilities and information technologies, hyper-competition in the retail industry, emergence of multiple retail formats and distribution channels, an ever increasing trend towards a globally dispersed retail network have made the retailer realize that to survive in the global market they need to give due emphasis on reducing costs as a means of achieving operational excellence. The operational logistical costs made in the part of supply chain that includes retailers’ warehouse and the stores are presented below [11]:

1. Handling in warehouse = 29%
2. Transportation = 22%
3. Inventory in store = 7%
4. Handling in store = 38%
5. Inventory in warehouse = 5%

It can be seen that the majority of the operational costs are the handling costs. Handling operations are costly and labor intensive. In order to minimize store operating expenses, one has to optimize order processing, inventory, transportation, shelf space and handling cost. Presently, research in retail operation does not focus together these issues in calculating the total operational costs. They consider these issues separately [14, 18, 23, 34, and 74]. Also, in these models the handling time and its related costs are not considered explicitly. This research focuses exclusively on the estimation of handling time in hyper store when replenishment is from back room. In our case handling time includes traveling time of product from backroom to shelf in the hyper store and time needed to stack the product on the hyper store shelf.