

# Memo

**To:** Matthew W. Ford  
**From:** Georgi E. Trifonov  
**Date:** September 24, 2007  
**Re:** Distribution and supply chain management analysis for Wegmans and Kroger Co.

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## Introduction

As assigned, the distribution and supply chain management has been investigated for Wegmans and Kroger Co. A comparison on distributions and supply chain management choice has been made between the two. The comparison also focuses on what beneficial operational decisions can be adopted at Kroger and how they will affect the distribution and supply chains.

## Summary

**Comparison between Wegmans and Kroger.** The comparison based on distribution strategy shows that Wegmans have implemented strategies that give them advantage over Kroger Co. Such are warehouse semi-automation and conveyor use, which results in decreased labor cost and increased speed and effectiveness. Working with vendors to improve packaging has reduced inventory loss at Wegmans. Information sharing through Global Data Synchronization will further increase their effectiveness. The planned replacement of SKU with ID-tag chips will further improve Wegmans' supply chain operations.

**Opportunities for improvement at Kroger.** Key opportunities for improvement at Kroger Co. are automation of the warehouse process through the use of conveyor belts that will reduce labor cost and improve effectiveness.

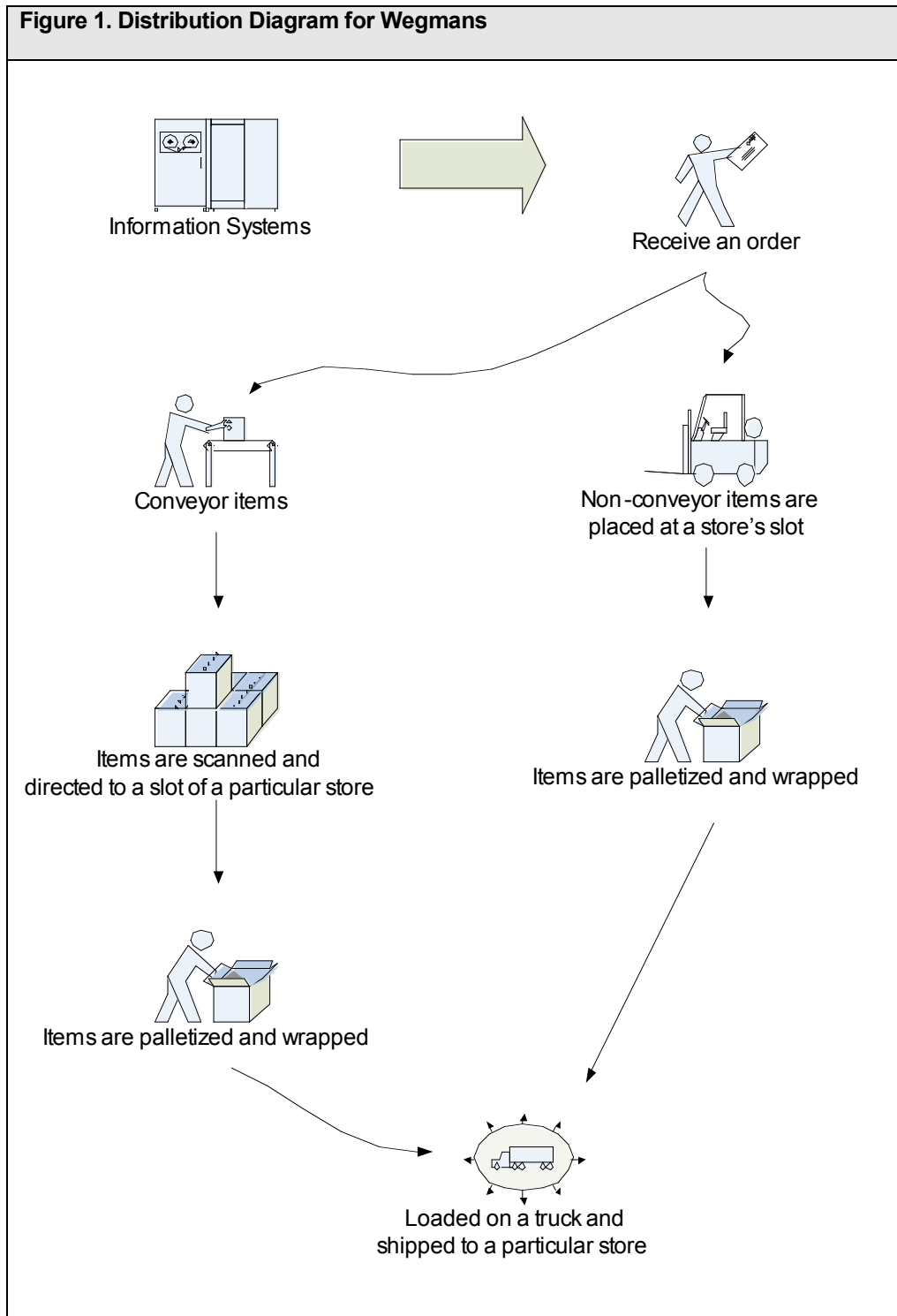
**Current and future recommendations for Kroger.** Key recommendation for Kroger at this point besides automation is vendor relations. Like Wegmans, Kroger should work with vendors to improve packaging and thus reduce inventory loss. Also, implementing Global Data Synchronization will improve communications with suppliers. Future recommendations will include the use of ID-tag chips as a replacement of SKU, which will increase speed dramatically.

## Analysis

**Data, Method, Assumptions.** Qualitative data found in Stevenson's *Operations Management* 8<sup>th</sup> edition as well as data from Wegmans' ([www.wegmans.com/about](http://www.wegmans.com/about)) and Kroger's ([www.thekrogerco.com](http://www.thekrogerco.com)) websites has been used. Also information on distribution strategies found on Wikipedia has been used ([www.wikipedia.org](http://www.wikipedia.org)). An alternative comparison (us vs. them) method of analysis was used. We assumed that the main focus of the research was what distinguishes Wegmans' distribution strategy from Kroger's and what can the latter adopt in their operations.

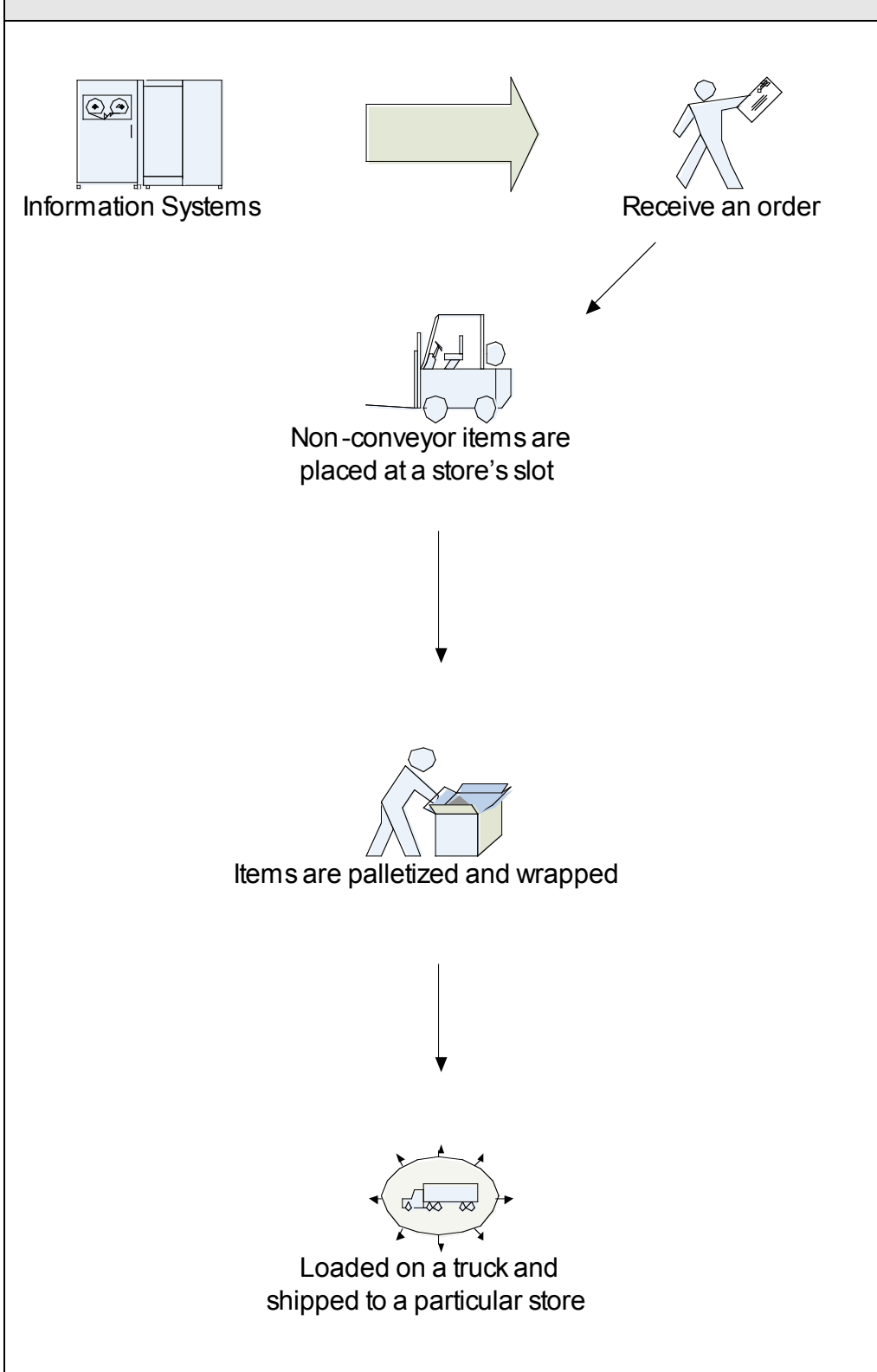
## Comparison between Wegmans and Kroger.

A basic distribution diagram for Wegmans Figure 1:



A basic distribution diagram for Kroger Co is given in Figure 2:

**Figure 2. Distribution Diagram for Kroger Co.**



**General distribution comparison between Wegmans and Kroger is given in Table 1:**

<b>Table 1. General distribution comparison between Wegmans and Kroger Co.</b>		
	<b>Wegmans</b>	<b>Kroger Co.</b>
<b>Management system type</b>	Pull	Pull
<b>Use of IT</b>	SKU; to use ID-tags in future	SKU
<b>Conveyor use</b>	Yes	No
<b>Warehouse operations automation</b>	Semi-automated	Manual
<b>Number of warehouse employees</b>	Lower	Higher
<b>Warehouse ownership</b>	Company owned, but B2B operated	Company owned
<b>Work with vendors to improve operations</b>	Yes, packaging, Global Data Synchronization	Yes, supplier diversity program
<b>Forecasting</b>	Consistent low pricing (everyday low prices)	Sales driven

**Management systems type.** Both Wegmans and Kroger Co. use a *pull* system (JIT) for their operations. We make this conclusion by looking at the how inventory is monitored and ordering is done: information systems are used for monitoring and when inventory falls beyond certain level a signal is sent to suppliers. The use of a *pull* system is the obvious choice in the grocery industry where inventory turnover is high and inventory is kept low.

**Use of IT.** Almost all large companies use information systems today and both Wegmans and Kroger are no exceptions. Interesting to note here is the fact that Wegmans is actually taking this to the next level with the future use of ID-tag chips. Their advantages to bar codes (faster readability by scanners, possible shelf scanning devices to warn when inventory levels decrease, etc.) make them an attractive future approach.

**Conveyor use.** Wegmans uses conveyors in their warehouses when the volume of items is low and packaging can withstand the conveyor belt. When packaging cannot withstand the conveyor belt, the items are individually case picked. At Kroger warehouses, on the other hand, items are manually retrieved and conveyor belts are not used. This results in slowed operations at Kroger warehouses and increased labor cost.

**Warehouse automation.** As noted before, Wegmans uses conveyor belts, thus semi-automation in their warehouse operations. This results in faster processing and more efficiency than manual operations (at Kroger warehouses).

**Number of warehouse employees.** Due to the partly automated process, Wegmans' warehouses require fewer employees. This results in reduced labor costs and faster operations. Kroger warehouses use manual retrieval of items, which suggests that a higher number of employees is required, thus increasing cost and reducing efficiency.

**Warehouse ownership.** Both Wegmans and Kroger own their warehouses, but Wegmans' warehouses serve their stores on a business-to-business (B2B) basis.

**Work with vendors to improve operations.** Wegmans and Kroger both work with their vendors as part of their vision that good relations with vendors increase positive results. Wegmans work with vendors to improve packaging, thus making more items suitable for conveyor use. Also, more importantly, they have implemented Global Data Synchronization, an information sharing strategy to link their information systems with their suppliers' systems. According to Wegmans this *will eliminate waste, deliver immediate results and prepare us for*

success together in the future. Accurate, synchronized data eliminates inefficiencies in the supply chain. Also your products will move through our supply chain with speed and precision, including your new item introductions. ([www.wegmans.com/about](http://www.wegmans.com/about)) Kroger, on the other hand, have implemented their *Supplier diversity* program to stimulate the minority- and women-owner businesses. However, this has no direct impact on distribution and supply chain management, but is rather a company ethics issue.

**Forecasting.** Wegmans have implemented their program of consistent low prices to improve forecasting and inventory planning. Although this strategy is highly unusual for the grocery industry, which relies more on the other approach: sales and promotions, it seems that it has worked well at Wegmans. Kroger uses the traditional for the grocery industry sales and promotions strategy to manage demand. This, however, makes forecasting and inventory management harder.

**Opportunities for improvement at Kroger Co.** Opportunities include implementing the winning approaches that Wegmans uses, such as warehouse automation through conveyor belts usage. This automation will allow Kroger to reduce labor costs at their warehouses, by reducing the number of employees needs to maintain warehouse operations. Also, this will result in more effectiveness and speed of the distribution process.

**Current and future recommendations for Kroger.** Key recommendation for Kroger at this point besides automation is vendor relations. Automation and improving vendor relations should go hand in hand to be most effective. If Kroger works with vendors to improve packaging and implements conveyor belts at its warehouses this will make its operations more effective. Also, like Wegmans, Kroger should consider Global Data Synchronization, to improve the communication with its suppliers. An increased flow of information between Kroger and its supplier will make the *pull* system even more effective, and will reduce inventory costs on one hand, and shortages on the other.

**Limitations.** When we considered the forecasting at both companies, we must notice that the benefits of the *everyday low cost* strategy for inventory management and demand forecasting might be fewer than its drawbacks. In the grocery industry where price fluctuation for certain items is high a *sales strategy* might be a more appropriate overall approach. Here we only consider its effect on distribution and inventory management.

**Sources:**

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