



Levi's "Personal Pair™" Jeans (A)

In 1995, women's jeans was a \$2 billion fashion category in the US and growing fast. Levi-Strauss was the market leader, but its traditional dominant position was under heavy attack. Standard Levi's women's jeans, sold in 51 size combinations (waist and inseam), had been the industry leading product for decades, but "fashion" was now taking over the category. Market research showed that only 24 percent of women were "fully satisfied" with their purchase of standard jeans at about \$50 per pair.

"Fashion" in jeans meant more styles, more colors, and better fit. All of these combined to create a level of product line complexity that was a nightmare for manufacturing-oriented, "push-based" companies like Strauss. By 1995, Strauss operated 19 Original Levi's retail stores across the country (2,000 to 3,000 square foot mall stores) to put them in closer touch with the ultimate customers. But this channel was a very small part of their overall \$6 Billion sales which were still primarily to distributors and/or independent retailers. **Exhibit 1** shows Levi's financial footprint.

Strauss was as aggressive as most apparel manufacturers and retailers in investing in process improvements and information technology to improve manufacturing and delivery cycle times and "pull-based" responsiveness to actual buying patterns. But the overall supply chain from product design to retail sales was still complex, expensive and slow. In spite of substantial improvements in recent years (including extensive use of "EDI") there was still an eight month lag, on average, between ordering cotton fabric and selling the final pair of jeans. The industry average lag was still well over twelve months in 1995.

The financial footprint for one pair of women's jeans sold through the normal wholesale channel compared to one pair sold through an Original Levi's Store is summarized in **Exhibit 2**. Although the retail channel was less profitable for Strauss, it was seen as an "investment" in understanding end-use customers better.

As an experiment in an alternative value chain concept, Strauss introduced "Personal Pair"™ kiosks in 4 of its Original Levi's Stores in the Fall of 1994. The experiment was made

This case was written by Professors Lawrence Carr, William Lawler and John Shank of the F.W. Olin Graduate School of Business at Babson College., as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation . It is based on publicly available information.

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possible by a partnership with Custom Clothing Technology Corp. (CCTC), a small Newton, MA-based software firm specializing in client/server applications linking point of sale custom fitting programs directly with single ply cutting programs in apparel factories. The new process operated as follows:

1. The "Personal Pair"™ kiosk was a separate booth in the retail store, staffed by specially-trained sales clerks and equipped with touch screen PCs.
2. A sales clerk used a tape to take three measurements from the customer (waist, hips and rise) and recorded them on the touch screen. There were 4224 possible combinations of these three measurements.
3. The computer flashed a code corresponding to one of the 400 prototype pairs stocked at the kiosk. The sales clerk retrieved the prototype pair for the customer to try on.
4. Within one or two tries, the customer was wearing the best available prototype. Then the sales clerk used the tape again to determine the exact measurements for the customer (4224 possible combinations) and to note the length required (inseam).
5. The sales clerk entered the 4 final measurements in the touch screen and recorded the order. Initially, the system was available only for the Levi's 512 style, but 5 color choices were offered in both tapered and boot cut legs.
6. The customer paid for the jeans and chose either Fed Ex delivery (a \$5 extra charge, per pair) or store pick up. Delivery was promised in "not more than three weeks."
7. There was a money-back guarantee of full satisfaction on every order.

Each Personal Pair™ customer order was transmitted by modem from the kiosk to CCTC where it was logged and immediately retransmitted directly to a Levi's factory in Mountain City, TN where each pair of jeans was individually cut. In the regular supply chain, patterns were cut from rolls of denim in stacks 60 layers thick.

After cutting, each pair was hand-sewn, inspected and individually packed for shipment. Jeans were normally sewn one pair at a time, but there was high WIP at each process stage and several pairs were made in sequence to minimize change-over time.

Each Personal Pair™ garment included a sewn-in bar code unique to the customer for easy re-ordering at the store where the bar code was on file in the kiosk.

Exhibit 3 is a summary of the normal supply chain for jeans sold through the Original Levi's Store distribution channel. The exhibit includes some additional information about inventories, property and equipment investment, and uncertainties across the chain.

Assignment Questions

1. Profitability, for any business can be thought of in terms of the basic Return on Invested Capital (ROIC) equation:

$$\begin{aligned}\text{Profitability} &= \frac{\text{Revenue} - \text{Cost}}{\text{Working Capital} + \text{Property \& Equip.}} \\ &= \frac{\text{Profit}}{\text{Investment}}\end{aligned}$$

- Calculate the pretax ROIC for Levi Strauss for both channels shown in Exhibit 2. So what?
2. What impact will the Personal Pair™ system have on the value chain shown in Exhibit 3? Be careful to consider how each element of the chain will be affected, if at all.
 3. How would you price the Personal Pair™ jeans (versus \$50 for standard, off-the-shelf jeans)? Would you lower the price, since the customer must wait up to three weeks for delivery? Would you raise the price, since the fit will be much better?
 4. In general, how will Personal Pair™ change the various elements of the financial footprint? Is the overall result a higher or lower ROIC?
 5. What is your advice to management regarding the Personal Pair™ experiment?

Further expansion?
Extend to other products?
Changes to the system?
Overall evaluation?

Exhibit 1
LEVI STRAUSS
AVERAGE FINANCIAL FOOTPRINT 1993-1995

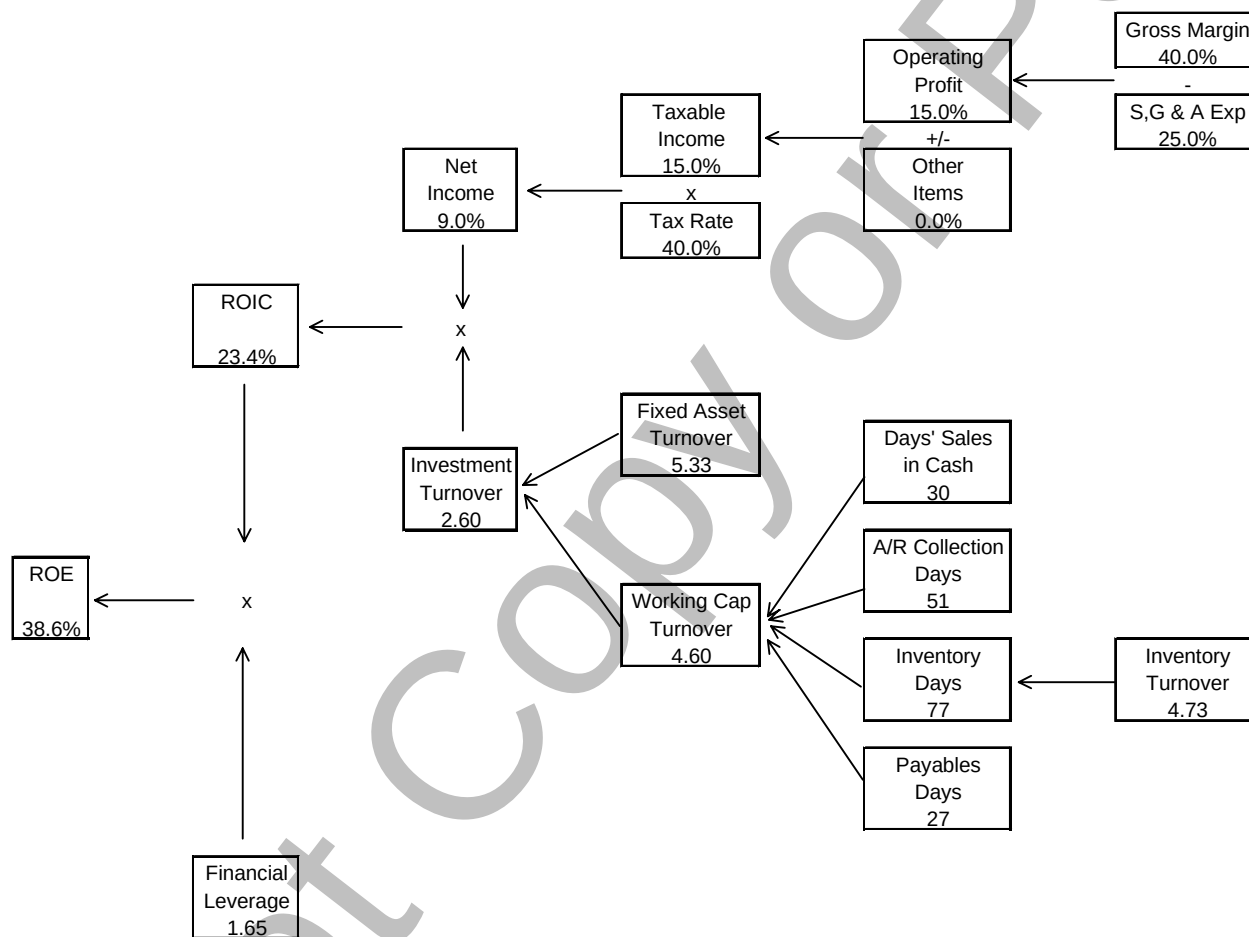


Exhibit 2

Profitability Analysis of Women's Jeans

	Wholesale Channel Estimate	OLS Channel Estimate	
Operations, per pair			
Gross Revenue	\$35	\$50	\$50 retail price with a 30% channel margin Average channel markdowns of \$5; 60% born by manufacturer
Less Markdowns	(3)	(5)	
Net Revenue	<u>32</u>	<u>45</u>	
Costs			
Cotton	5	5	Given
Mfg. Conversion	5	5	High labor content since all jeans hand sewn
Distribution	9	10 ¹	Large, wholly-owned distribution network
Total COGS	<u>19</u>	<u>20</u>	
Gross Margin	<u>13</u>	<u>25</u>	41% 56%
SG &A	9 ²	19 ³	
Profit before Tax	<u><u>\$4</u></u>	<u><u>\$6</u></u>	13% 13%
Investment per pair			
Inventory	\$4 ⁴	\$12 ⁵	Reflects 27 days of Accounts Payable
Less A/P	(1)	(1)	
Accounts Receivable	<u>4⁶</u>	<u>0⁷</u>	
Net Working Capital	7	11	
Factory PP&E	5	5	Reflects a sales to fixed asset turnover of 5.33 (Factory and Distribution combined)
Distribution PP&E	1	2 ⁸	
Retail Store	0	20 ⁹	
Total Investment	<u><u>\$13</u></u>	<u><u>\$38</u></u>	

1. ?

¹ Add \$1 for retail distribution, warehouse to store (estimate)

² At \$9, a little higher than overall 25% SG&A due to supply chain problems with women's jeans

³ The additional \$10 reflects an average 22% Store Expense for retail clothiers (Compac Disclosure database)

⁴ Reflects 77 days of inventory for Levi Strauss

⁵ Reflects an additional 163 days of retail inventory, for a total of 240 days (8 months)

⁶ Reflects a 51 day collection period for Levi Strauss

⁷ Retail customers pay at point of purchase

⁸ Doubled due to additional retail distribution investment (estimate)

⁹ \$2.4M per store for 120,000 pairs sold per year (average estimate)

Exhibit 3
LEVI STRAUSS
TRADITIONAL ORIGINAL LEVI'S STORE 512 SUPPLY CHAIN

