Errante Ltd.

Errante Ltd. products began operations in 2005 with its initial wheels which were made for rolling crates (**RC**). The company patented the wheel which had unique features of being able to spin in all directions (Patent #1) and was designed to retract (Patent #2) into the crate. Patent amortization for the RC related patents amounts to $456,789 each year. These two key features made the crate easy to maneuver through airports, factories and warehouses. The first feature, known as "directional universality", has been very popular. The second feature, which employs a unique casing to protect the retracted wheel, increased the product's longevity by reducing damage from harsh treatment in transit and increased the efficiency of storage.

The crates that the wheels were built for were primarily used by manufacturers in North America. Errante LTD. distributes these wheels to various manufacturers that have warehouses and also to airports for moving luggage. The **RC** is a polyurethane wheel developed by the company founder. The annual separable fixed cost identified with product **RC** includes the amortization of a patent, specific manufacturing leased equipment ($905,000) and a marketing department ($920,000). The salespeople receive a $25 commission per unit sales of the **RC**.

In 2011 the company designed a wheel to be used for large recycling containers utilized by hospitals (**H**). The (H) did not use Patent #2 but did leverage off of the designs of Patent #1 as the contents of the containers were very heavy and bulky.

Manager **H** says, "sales have been brisk and the firm is excited about the future possibilities given the movement to increased environmental awareness. I am pursuing two hospital clients, each with forecasted demand of #10,000 units annually. World demand is exponential, especially once we crack the University market. Luckily, I understand hospitals and selling, because Errante LTD. marketing has been useless." The **H** product requires the leasing of equipment at $456,000 per year. There are two sales managers, one for hospitals and one for universities. In addition to their $50,000 salary they each received an $80,000 bonus for increasing sales in 2014.

In 2012 Errante LTD. introduced Product **M**, a customized wheel that is tailored for crates that are used in marinas. This wheel is used in a variety of applications where the wheel is exposed to rain, salt and snow. These customized wheels are much more durable than the other Errante LTD. products. During the past year there were "production bottle-necks" which caused two orders of 15,000 units to be cancelled. The problem arose as Machine A was not available due to a capacity constraint for that month, because it was making the **RC** product. Demand is seasonal and for 2015 is expected to be #150,000, even higher if the arctic market responds favorably.

The CEO thinks that there expertise in wheels could be applied to many other industries such as luggage and that there ability to customize is unique.

Product (**RC)** and (**H)** each have a manager that is paid $175,000 per year. Product **M**'s manager is paid $150,000 per year. In addition to the costs already itemized, there is $690,000 spent on general administration each year.

Year	RC Sales (units))	RC Selling Price	H Sales (Units)	H Selling Price	M Sales (units)	M Selling Price
2011	41,234	$238	320,000	$79	-	
2012	38,976	$240	260,000	$89	6,000	$70
2013	32,145	$220	215,000	$99	35,000	$75
2014	31,890	$210	218,000	$99	109,000	$70

The annual leases of the machines are applied to each product line overhead:

	Machines A	Machines B	Total
Annual Leases	$ 1,750,000	$ 2,672,994	4,422,994
Capacity (Minutes)	1,544,560	1,480,780	3,025,340
Overhead manufacturing application ($ per minute)			
Annual Leases / Minutes			$ 1.462

The annual capacity of Machines type A is 1,700,000 minutes and Machines type B is 1,600,000 minutes. According to the factory manager, "due to set-up, maintenance and scheduling it is not reasonable to plan on a usage rate of more than 90% of stated capacity. Thus, I budget in a 10% buffer and likely next year I will need a 15% capacity buffer."

The following table outlines the gross margin for each product and the minutes needed on each machine to produce one unit of output. The overhead item includes overhead from machines A&B and other variable overhead.

		RC	H	M (Marina)
Selling Price		$ 210.00	$ 99.00	$ 70.00
Less:	Direct Labor	22.00	12.00	10.00
	Direct Materials	13.00	31.00	22.00
	Overhead	34.12	56.25	31.36
	Gross Margin	140.88	(0.25)	6.64

	RC	H	M (Marina)
Minutes to make one unit			
Machine A	4	6	1
Machine B	2	4	5
Total minutes	6	10	6

Financial records indicate that profits have decreased over the past several years and investors are getting frustrated. The controller is in charge of establishing the production plan each month and has had to increasingly deal with a rising number of product complaints (RC) and delivery schedule complaints from customers. One customer stated, " if you can't deliver on time, as per schedule, we will not pay on time." Selling prices are set annually by marketing.

A powerful investor has been quoted recently: "I am gravely disappointed with last year's financial performance. The company has no strategy in place for increasing these substandard returns. We have too many costs that are not associated with the actual production of the products. I would like to see an analysis in the meeting ranking the products, best to worst."

Recently, it was accidentally revealed on Twitter, that the $690,000 in general administration expense includes:

- $20,000 spent by **M** holding a "renewal retreat" for **M**'s workers.
- $42,000 recent office renovation in which **M** secured the best corner office.
- $34,000 bonus to the factory manager for maintaining capacity utilization above 85%.

The average accounts receivable for H has grown by 20% in each of the past two years while the other products have decreased slightly in this time period.

The CEO is concerned that the powerful investor will demand that the CEO be removed and thus the CEO wants to make sure he understands the current situation. He would like to understand better the "industry forces at play" for each of the three product lines and he also is not sure about the profitability of each product line.

His friend mentioned to him that he should not use gross margin to evaluate a product because the calculation is "contaminated with sizable fixed costs" and provides a misleading number.

Recently the CEO has also been reading about transient advantage and wonders if that applies to the various product lines of Errante.

Part 1: Your Task for Tuesday's Class (January 26th):
For Tuesday's class, as an individual, calculate the profitability of each of the three products and rank them first, second and third.

Part 2: Role Play
In class your group will be given some additional information and specific roles. You will then be given 30 minutes to prepare a presentation for the CEO.

Preparation prior to class (completing part 1) is critical to the construction and completion of Part 2.