

DELTA FORCE &
The Margin Game

Who was Sir Issac Newton?

Sir Isaac Newton was one of the greatest scientists and mathematicians that ever lived. He was born in England on December 25, 1643. He was born the same year that Galileo died. Newton's ideas were so good that Queen Anne knighted him in 1705. His accomplishments laid the foundations for modern science and revolutionized the world. Sir Isaac Newton died in 1727.

Newton stated the three universal laws of motion. Together, these laws describe the relationship between any object, the forces acting upon it and the resulting motion, laying the foundation for mechanics, machines, physics, astronomy, optics, and myriad theories that led to the industrial revolution.

NEWTON'S 1st law deals with Inertia."***An object at rest will remain at rest unless acted on by an unbalanced force".*** Money will reamin at rest also, unless you act and put it to work. The force will determine the results. There is no time for your money to sleep!

NEWTON'S Second Law is."**FORCE = MASS x ACCELERATION"**



There is a relationship between your money and the speed of acceleration or growth which is directly attributed to the force applied upon it. This Force is a critical variable that will determine the outcome!

In the Margin Game we call this force ***DELTA FORCE.***

There is inertia and force between the numbers in an investment equation and its rate of return and Gross Profit Margin.

By the way Newton's 3rd law is ***"For every action there is an equal and opposite re-action" but we wil save that for a future game which examines Risk vs. Reward.***

So how do you apply Newtons law to your business? The first level is the understanding of the gross profit margin which we will refer to as G.P.M. The less money you place into a given product or service for resale the higher the ratio of G.P.M. when resold at a profit. Let us review from the 1st chapter of the Lemonade Game.

When you played the Lemonade Game earlier you converted your cash to a potential highest and best use by purchasing $5.00 worth of raw inventory consisting of lemons, limes, and sugar. Then you used your Dyval (dynamic valuation) and tested on a small scale creating an awesome lemonade. Converting the raw inventory into a finished product you were reaady to go to market. After your sale the finished inventory was converted into $15.00 giving you a gross profit of $10.00. The $10.00 in gross profit was divided by the gross revenue (the $15.00) resultin a G.P.M. of 67% EXCELLENT!

Continuing, let's explore the relationship between the numbers as ratios knowing we want the HIGHEST RATIOS possible for G.P.M. Sometimes many business postings highlight the gross sales without really detailing the margins. This would be a critical mistake because in that situation the numbers do not really tell the story.

The Margin Ratio between the gross sales price and the cost of the goods sold (the C.O.G.S.) is the Delta Force. Simply put the amount of gross profit expressed as G.P.M. when divided by our gross receipts will be our horsepower! Remember the golden rule (***the higher the number of G.P.M will give you the most force, the most horsepower and that matters!***).

The DELTA FORCE between consecutive numbers changes dramatically as the numbers increase or decrease.

For example the difference between 9 and 10 is only 1 but... (11 percent increase)
while the difference between 99 and 100 is only 1 also but... (1.1 percent increase).
From these equations both numbers increased by a little amount (only 1) however, the percentage differential is completely different.

What happens if we compare percentage differentials by going down or backwards by one?
Will there be a difference? Lets examine.

For example when going from 5 to 4 the difference is also 1 going backwards and the ratio is a reduction of (20 percent)
When calculating down from 10 to 9 the difference is also 1 and reduction ratio is (10 percent)

From our examples we can see that going forward or backward does make a difference. Furthermore, the ratios are also significantly different too! When we apply this principal to our business this will be be very important. Let us take a few more examples and apply this principal to Gross Margins and determine which of the following four business plans makes sense.

Having a high G.P.M. also allows to you have some wiggle room.You must also plan for the mishaps such as spoilage, returns, allowances, taxes, costs of shipping, credits, leakage, and myriad of other expenses or changes that were unexpected.

Think of recalls for a big automobile manufacturer. In todays economy with so much online shopping there are expenses for returns, shipping costs and the list goes on. Can you think of any other events that may cause havoc to the margin numbers.?

Let's examine four business plans with each one making a buck ($1.00) per product sold. Whicj seems to be the most viable and why?
example 1) Mr. Lead buys a box of pencils for $1.00 and sells them for $2.00 to the local drawing school.Assuming he has no other expenses what is his gross profit expressed in dollars _____?

In example 1 Mr. Lead sells his pencils for $2.00 after purchasing the inventory for $1.00. Therefore we divide as follows: $2.00/$1.00 equals 2. From that we subtract 1 resulting in the answer of 1.00 or 100% percent profit.

Isn't that interesting? Both business men bought and sold products earning $1.00 in gross profit, however their respective margins are significantly different. Let us continue.....

example 3) Mr. Oil buys tubes of paint for impressionistic art school paying $9.00 and selling them for $10.00 Assuming he has no other expenses what is his gross profit expressed in dollars _____?

In example 3 Mr. Oil sold his product for $10.00 after purchasing thr inventory for $9.00. Therefore we divide as follows: $10.00/$9.00 equals 1.11% From that we subtract 1 resulting in the answr of 0.11

DELTA FORCE HAS JUST PROVEN that the difference between consecutive numbers changes considerably as the numbers increase. This is a critical ratio in determining the viability of an investment.

In order to make a smart business decision on an investment or a business result you must look deeper than the bottom line expressed in dollars or as a gross profit. Considering the DELTA FORCE may alter your opinion of risk verses reward in your choices.

Let us take the previous examples apply the principals of leverage and see how that effects the DELTA FORCE and the bottom line of profitability.

Assume you can get into any of the four business models with no money down by financing the purchase of your inventory for one year at 10 percent annual interest. At the end of the year you sell all your inventory and pay back the finance charge. Wow that is great leverage! How are you doing?

In order to solve the next set of examples you will have to add additional expenses to the acquisition price of the asset. This increase in capital expenditures or the cost of money materially afects the bottom line and changes the Delta Forve equation.

In example one you have purchased your inventory for $1.00 and with the finance charge of _____% your cost is _____ Solve for your profit margin using the Delta Force formula _____

In example two you have purchased your inventory for $4.00 and with the finance charge of _____% your cost is _____ Solve for your profit margin using the Delta Force formula _____

In example three you have purchased your inventory for $9.00 and with the finance charge of _____% your cost is _____ Solve for your profit margin using the Delta Force formula _____

In example four you have purchased your inventory for $19.00 and with the finance charge of _____% your cost is _____ Solve for your profit margin using the Delta Force formula _____

What if other costs of owning inventory added were added such as rent, insurance and utilities. Lets us use 12% of the cost of the goods as an example. How would you be doing with these reasonable additional expenses?

The bottom line is that the gross margins will change. Being aware of these variables might be the key factor in sustainability over a period of time.