HOW FAST CAN A BUSINESS GROW & SURVIVE

EXPLORING THE FUNDABLE GROWTH RATE OF A BUSINESS

TABLE OF CONTENTS

INTRODUCTION

A singled-minded focus on growing revenue can kill a business irrespective of how profitable it might be. All too often business people ask “so where’s all the money gone” even though their business has made a profit.

In this article, we introduce the subject of working capital management and illustrate a new tool to help you grow your business at an optimum rate with safety. This tool, the Fundable Growth Rate, will also help you identify what your strategic options are and where your operational focus should be.

Working capital is the sum of non-fixed assets such as inventory (trading stock, raw materials, work in progress and finished goods) and receivables (debtors) minus short-term creditor finance (amounts due within12 months and variously described as accounts payable or creditors.)

As a business grows, so too does its need for funds. For example, it requires more funds to finance increases in accounts receivable if it offers credit to its customers, it needs more funds to finance additional inventory required to meet customer demand and it will need more reserves to cover its normal day-to-day operating costs for such things as wages, rent, advertising etc.

Some of the funds required to support additional sales volume will be automatically available from suppliers who are willing to offer deferred payment terms (creditors or accounts payable) but this source of finance is limited.

At the risk of over-generalizing, if a business doubles in size, other things being equal, it will need twice the amount of working capital to support it. If funds are not available to finance that growth, the business risks failure because it is unable to meet its creditor's demands for payment even though the business may be very profitable.

The following simple example illustrates the point.

A business has revenue of $1,000,000 and earns a net profit after tax of $75,000. We'll assume it has working capital as shown in the Year 1 column of the table below. If its revenue doubles in year 2 and it maintains its net profit margin it will earn a net profit after tax of $150,000. However, even if all of this is re-invested in the business to finance additional working capital it will still have a cash shortfall of $60,000.

It will be even worse than this because it will also need more finance to cover additional operating expenses and if in addition to financing working capital, the business has to pay off some pre-existing debt, make additional investments in fixed assets and/or pay dividends to shareholders, the cash position is likely to become life threatening.

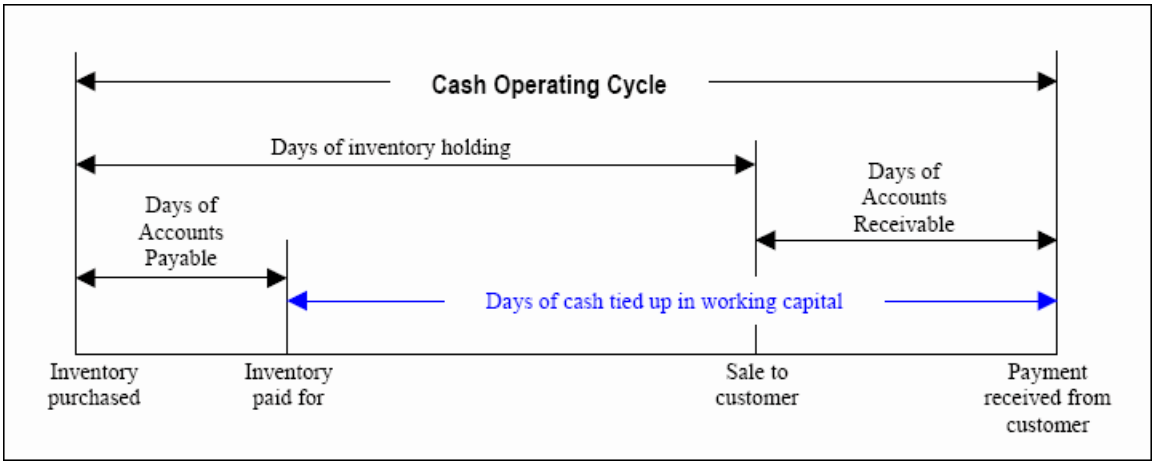
	Year 1	**Year 2**
Revenue	1,000,000	2,000,000
Cost of goods sold	700,000	1,400,000
Operating expenses	175,000	350,000
Tax (40%)	50,000	100,000
Net Profit after tax	75,000	150,000
Accounts receivable	125,000	250,000
Inventory	160,000	320,000
Accounts payable	(75,000)	(150,000)
Net working capital required	210,000	420,000
Increase in working capital needed to be funded		210,000
Cash shortfall after all profit is re-invested		60,000

There is a limit to how fast this business can grow. We call that limit a Fundable Growth Rate. If it grows at a slower rate than that limit it will generate a positive cash flow (assuming it maintains its level of working capital management.) If it grows faster it will require additional funding. Without that funding it will risk failure. Understanding what's known as "the cash operating cycle" is a key.

THE CASH OPERATING CYCLE

The cash operating cycle refers to the average time it takes to go from the purchase of inventory to the collection of cash from customers. During this period the business has money tied up in working capital and it needs to finance its operations. Businesses that carry little (or no) inventory and which are paid at the time they make a sale of products or services will have a very short operating cycle. Other businesses such as manufacturers, retailers, wholesalers, importers etc can have very long operating cycles.

CASH OPERATING CYCLE



One of the most challenging aspects of managing a business is balancing profit growth objectives with solvency. This is a critical management planning decision and one that is given far too little attention. As you'll see in a moment, Principa has tools to focus attention on these issues and to plan strategies to help. In the absence of these tools, many of the strategies that are typically employed to grow revenue have the potential to un-wittingly destroy it.

For example, price discounting to gain market share may increase sales (though not necessarily revenue if the discounts are too high) but the reduction in margin means less cash will ultimately be released. Additional sales will also mean accounts receivable increase, which consumes funds. This may be further affected by offering more generous terms to customers to encourage them to buy, but that lengthens the operating cycle and consumes funds.

It is also important to note that operating expenses will usually increase with higher levels of business activity partly because resources are needed to drive the additional activity (e.g. advertising, hiring extra sales people) and partly because the additional activity drives the need for additional support resources (e.g. additional accounting personnel, additional customer support personnel, extra space, additional plant and equipment etc.)

It's critically important to understand that funding for revenue growth can only come from four sources.

1) The company's own internal cash reserves including the cash released from its current year's retained profit. Improving profitability will release more funds.

2) The sale of assets, which might include plant and equipment, inventory, investments, subsidiaries or business units. Funds can also be released through the sale of receivables via factoring which effectively means shortening the cash operating cycle.

3) Additional capital injected into the business by shareholders.

4) Additional borrowings. A portion of additional borrowings will be available from the businesses' suppliers under their normal trading terms but if the business grows too fast this will not be sufficient and additional structured debt may be required. The sale and lease back of fixed assets also falls into this category.

The Fundable Growth Rate (or FGR for short) is a critical piece of information that managers should be aware of. The business described previously has a FGR of 49.7% as shown below (Exhibit 1) in a screen view taken from a Principa software application.

On the assumption that this business starts with a zero cash reserve and that it requires no additional funds for loan repayments, capital investments or dividends, it can only grow its revenue to $1.497 million (49.7%) without requiring additional funds either from shareholders or from external sources. At this level of revenue the after tax profit generated is just enough to finance the additional working capital required. It would be able to support a higher growth rate if management could find a way to achieve any of (or a combination of) the following outcomes:

- Increase the Gross Profit %, for example, by increasing prices or reducing the cost of sales.

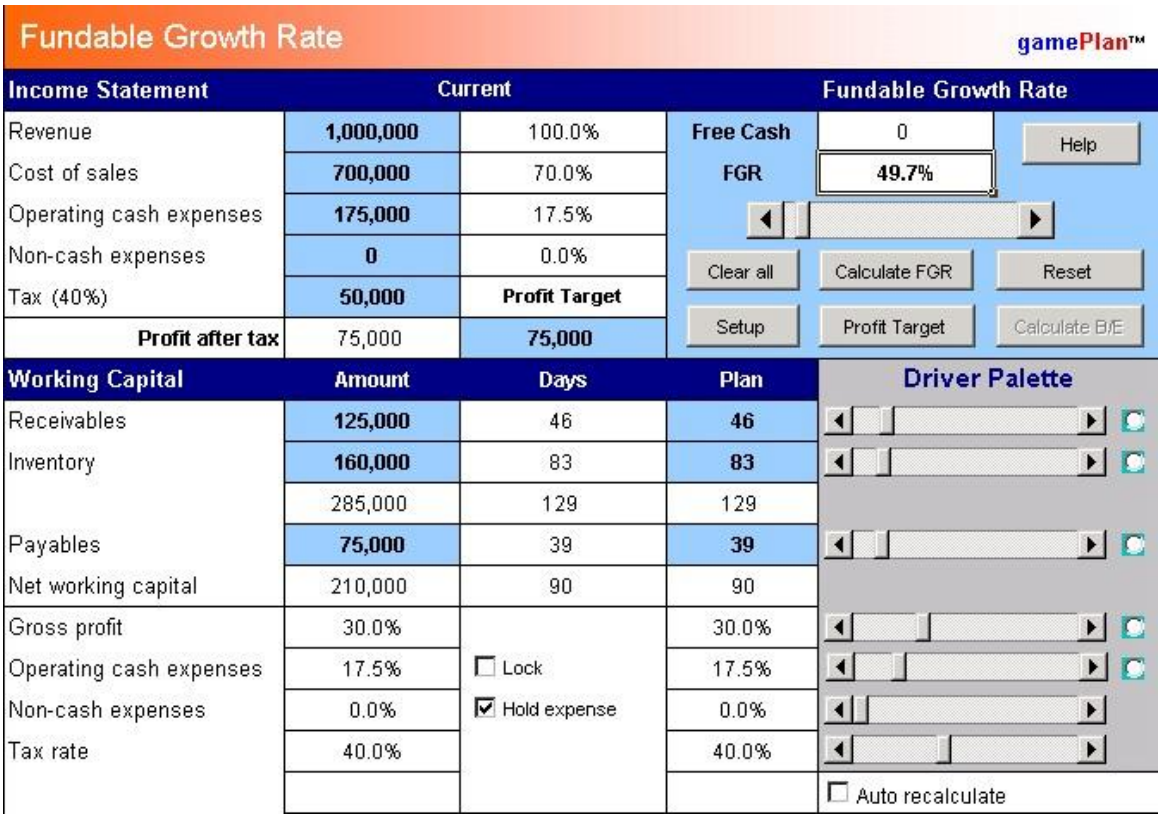
- Reduce the accounts receivable and/or inventory turn rate (i.e. shorten the operating cycle.)

- Increase the accounts payable turn rate with the agreement of its suppliers (i.e. shorten the net number of days tied up in working capital.)

- Reduce operating expenses (i.e. increase its net profit margin.)

- Reduce tax liability (if only it was that easy!)

EXHIBIT 1



	Current	Plan	Change
Revenue	1,000,000	1,497,279	497,279
Cost of sales	700,000	1,048,095	348,095
Gross profit	300,000	449,184	149,184
Operating cash expenses	175,000	262,024	87,024
Non-cash expenses	0	0	0
Tax	50,000	74,864	24,864
Net Profit after tax	75,000	112,296	37,296
Receivables	125,000	188,698	63,698
Inventory	160,000	238,334	78,334
Payables	75,000	111,988	36,988
Working capital	210,000	315,044	105,044
Operating cash expenses	14,583	21,835	7,252
		Funds required	112,296
		Funds available	112,296

The following table shows what the business would need to achieve in relation to each of the variables that impact its maximum fundable growth rate compared with the situation that currently exists.

	Currently	Required to support 100% growth
Accounts receivable turn (days)	46 days	32 days
Inventory turn (days)	83 days	63 days
Accounts payable turn (days)	39 days	59 days
Gross profit %	30.0%	35.2%
Operating expenses %	17.5%	12.0%

By examining the table above you can see that if you are able to maintain very tight control over your working capital and/or improve your Gross Profit and Net Profit margins you will be able to sustain higher revenue growth and therefore higher profit growth rate. This increases the return on investment that your business can achieve and will give it a significantly higher value.

You should also note the importance of taking a holistic approach in which each of the variables is given equal attention. For example, there is little point having a very tight credit control system in place to keep your receivables turn rate low, if you allow your gross profit margin to slide or your inventory to build up. Similarly, focusing solely on expense control is no more important than the attention you give to the working capital variables and/or your Gross Profit margin.

GROWCO: A CASE STUDY

Let's turn our attention to a case study in financial planning using the FGR idea. For that purpose, consider the following simple example of a company we'll call Growco. Last year Growco's operating results were as follows:

Revenue	1,500,000	Other information:	
Cost of sales	1,050,000	Receivables turn (days)	45
Gross Profit (30%)	450,000	Inventory turn (days)	95
Operating cash expenses	320,000	Payables turn (days)	30
Non-cash expenses	30,000	Cash position	25000
Net profit before tax	100,000	Tax rate	40%
	Tax payable		40,000
	Net profit after tax		60,000

Let's suppose that the CEO of Growco, Ima Knoall, decided to target an after tax profit of $90,000 this coming year which translates to a pre-tax target of $150,000. Ima had ambitious plans to aggressively expand Growco and projected operating expenses for the coming year of $550,000 that would give her capacity to double revenue.

Based on these assumptions Ima calculated that with a 30% margin she needed revenue of about $2.3 million or a 55% increase in sales to achieve her profit goal. She believed that was very possible given the strength of the economy and Growco's excellent reputation. She had also calculated that her break-even revenue was $1.83 million (12% growth) given her projected operating expenses. With that in mind, she set about implementing her plan.

As the year progressed Growco's sales targets were being exceeded and were running at 60% higher than the previous year but to stimulate sales they aggressively priced some deals and the Gross Profit % was coming in at 29.5%. You'll note that's 0.5 points below her target of 30%. Knoall told her people not to worry about that because the variance from target was so small.

In her enthusiasm to attract new business she also allowed several new large customers to have extended credit terms which resulted in her receivables collection rate extending to an average of 55 days. She also added two new product lines that contributed to Growco's inventory turn rate slowing to 99 days. She had seen this in her monthly reports but felt that it was within acceptable limits. Finally, being acutely aware of the need to keep tight control over overheads she ensured that the business was running very close to the annualized target of $550,000

As the year progressed Growco came under increasing cash flow pressure. Knoall experienced problems with creditors who expressed concern at the company's slowdown in payment of their accounts. Growco had always worked within 30 day terms but Knoall was finding it impossible to meet that target.

Using the FGR application (Exhibit 2) we can reconstruct what Growco was going to look like by year end given the trends that Ima provided. With a 60% increase in revenue, although the company was slightly ahead of its profit target (which Ima was delighted about) it was facing a cash deficiency of $176,000. Given that Growco started the year with $25,000 in funds that is a negative net cash flow of $200,000.

EXHIBIT 2

Fundable Growth Rate — gamePlan™

Income Statement	Current		Fundable Growth Rate		
Revenue	1,500,000	100.0%	Free Cash	(176,450)	Help
Cost of sales	1,050,000	70.0%	FGR	60.0%	
Operating cash expenses	320,000	21.3%			
Non-cash expenses	30,000	2.0%	Clear all	Calculate FGR	Reset
Tax (40%)	40,000	Profit Target			
Profit after tax	60,000	90,000	Setup	Profit Target	Calculate B/E

Working Capital	Amount	Days	Plan	Driver Palette
Receivables	184,932	45	55	
Inventory	273,288	95	99	
	458,219	140	154	
Payables	86,301	30	30	
Net working capital	371,918	110	124	
Gross profit	30.0%		29.5%	
Operating cash expenses	21.3%	☑ Lock	21.7%	
Non-cash expenses	2.0%	☑ Hold expense	2.0%	
Tax rate	40.0%		40.0%	
Cash expense assumption	520,000			☐ Auto recalculate

The only way this situation was going to be able to be funded was to raise additional finance or allow accounts payable to blow out to 70 days, which would represent an increase of $240,000 over the previous year! This was unlikely to be tolerated by suppliers and they could have forced Growco into bankruptcy even though the company was making a profit that's 50% higher than the previous year. And therein is the rub!

Without the use of tools to calculate FGR, Knoall made several strategic mistakes in her planning:

- First, she let her profit target take precedence over cash flow considerations
- Second, she started her planning with the idea that as long as she was able to cover the resource costs associated with additional capacity she would be OK
- Thirdly, once she had decided on her revenue target she relaxed her control over receivables and inventory and in fact allowed them to blow out in order to further her revenue growth aspirations.

WHAT SHOULD THE CEO OF GROWCO HAVE DONE?

Ima should have started her planning process with a review of Growco's Fundable Growth Rate. She would have discovered that based on: (1) an opening cash position of $25,000, (2) the company's working capital turn rates, (3) its gross profit margin and (4) projected expenses of $550,000 it would have been impossible for her to achieve her profit target of $90,000 without additional funding of about $80,000. The FGR based on her planning assumptions was 36% and based on her actual working capital turn rates and Gross Profit % of 29.5% it dropped to 15%. Any revenue growth above this level would drain cash.

HOW MUCH COULD THE COMPANY HAVE GROWN WITHOUT FUNDING?

She would have also found that she could have grown the business to $2.038 million – a 36% growth over the previous year but only if its expenses had remained at around 21.3% of revenue or $435,000. Interestingly, at that level of revenue her after-tax profit would have been $88,000. And most interestingly, that's within a bull's roar of her $90,000 target but with considerably less activity and no additional funding required!

WHAT WOULD GROWCO'S FUNDING REQUIREMENTS BE TO ACHIEVE THE PROFIT TARGET?

The FGR application would have shown Ima that in order to achieve her profit target given her expense projection, Growco would need a 56% increase in revenue to $2.3 million AND would require additional funding of $79,000.

On the other hand, if her expenses ran out at 21.3% of revenue, Growco's revenue would need to be $2.1 million (a 38% increase) to achieve her profit target and additional funding would need only be about $10,000. This might prompt here to re-think whether she should be pursuing such an ambitious capacity expansion at this time.

WHAT OTHER STRATEGIES MIGHT BE EXPLORED THAT WOULD ACHIEVE THE PROFIT TARGET WITHOUT EXTRA FUNDING REQUIREMENTS?

We'll assume for the purpose of this discussion that Growco's total expenses will be locked at $550,000.

PRICING

On a Gross Profit margin of 30% Growco needs 56% revenue growth and funds of $78,000. No funds would be required if the gross profit margin was 34.3%. Another Principa software tool that we have developed indicate that to achieve that margin, Ima would need an across the board price increase of 6.5%. However, the higher Gross Profit % would allow Growco to experience a 12.5% decline in total revenue and still achieve a net profit of $90,000.

It's also important to note that this translates to a fall in physical sales volume of up to18% before total gross profit is less than the initially targeted $700,000. Given that Ima believes demand is strong and the lower level of activity will probably also mean lower operating expenses this would have to be a strong decision candidate.

Furthermore, if cash expenses were 18% lower at $426,000 Growco's net profit would rise to $146,000 and there would be free cash of $74,000 which reinforces the importance of managing for profit growth with a constant eye on cash flow rather than a single minded focus on revenue growth unless you are consciously pursuing a strategy to gain market share—we will discuss this issue later.

IMPROVE RECEIVABLES COLLECTIONS

At 45 days Ima's target credit collection rate is not too bad given 30 days terms but there is definitely scope for improvement. She would not need any additional funding to finance her profit growth target if she could get that down to 33 days. On the other hand, she may come to the view that if she gets too aggressive with collections, she may lose some customers and her sales target will be prejudiced.

This is always a difficult decision but customer selection and collection policies do need to be given a high priority. Customers who are not willing to pay within the terms offered by Growco may be unprofitable after the cost of funds tied up in the amount they owe and the impact that has on Growco's cash flow are taken into consideration. The company may be better off if they moved to a competitor.

REDUCE INVENTORY HOLDING

Assuming Ima holds to her 30% gross profit margin, she could generate enough funds if she was able to reduce inventory holding to 78 days which, given her 36% sales increase would be achieved with an increase in inventory of $73,500 rather than $151,800 that would be the case if the turn rate stayed at 95 days.

As part of her review of inventory she would probably have discovered that some of Growco's product lines are very low profit contributors and may even be costing the company money to hold after allowing for the cost of funds tied up. Often, when product line contribution analysis is done, you find that a relatively small proportion of your product or service lines contribute a disproportionate share of your revenue and profit contribution. By culling the low contributors you not only improve inventory turn but you also improve margin and return on investment – often quite significantly.

RENEGOTIATE TERMS WITH SUPPLIERS

In the past the company has always paid its bills right on time and has averaged a payables turn rate of 30 days. It would seem that there's scope for Ima to take some liberties here especially since she's going to be buying a lot more and has had a good track record. The FGR software shows that if she could negotiate with suppliers to extend their trading terms so that she would average a payables turn of 47 days she would require no additional funding. This may not be possible but it's worth pursuing.

A COMBINATION STRATEGY

Having looked at the variables that drive profit and cash flow Ima is in a much better position to make an informed judgment. Here's what she might do.

- Plan for a net profit target after tax of $90,000
- Set her prices to achieve a gross profit margin of 32% and reset her revenue target based on that assumption. This would require a price increase of about 3%.

- Implement initiatives to bring receivables back to 40 days turn.
- Following a review of her inventory holdings set a target turn rate of 85 days.
- Extend her average payables turn to 35 days.

If she were able to implement this she would end up with the following result:

- Net profit after tax $90,000
- Revenue target of $2,187,500
- Free cash $56,758
- With this set of working capital dynamics and operating performance the Fundable Growth Rate would be 398% - that is, assuming $550,000 in expenses did not change, Growco could accommodate up to $7,500,000 in revenues without the need for additional funds. While revenue of this amount is unlikely to be able to be supported without a significant increase in expenses it is relevant to note that Ima believes the $550,000 expense projection can support a doubling in revenue to $3,000,000. At this volume, Growco's profit would be $246,000 and free cash would be $48,000.

FGR AND COMPETITIVE STRATEGY

We have presumed in the previous discussion that the primary goal of Ima is to make a profit for Growco. While that will always be a long-term objective, it is quite possible that a short term objective will be to trade-off profit to gain market share so that the business is positioned to reap even larger profits in the future.

Understanding the FGR concept can help Ima define her strategy. For example, Ima will increase her FGR if she can find a way (and where there's will there's always a way) to dramatically reduce receivables and inventory and also negotiate with her suppliers to extend their credit terms.

This in turn will enable her to lower her prices and if the market she serves is price sensitive (this is a very important consideration) this will enable her to take volume away from her competitors, put pressure on their bottom line and therefore improve her long term competitive position without putting any real strain on Growco's cash position.

Let's put some numbers on this to see what she could do. The FGR model indicates that if receivables and inventory turn can each be reduced to 30 days (a dramatic reduction, especially for inventory) and payables extend to 40 days, the FGR rises to 282% indicating potential fundable revenue of $5.7 million and free cash of $270,000.

Remember that Ima has indicated that she has capacity to double Growco's revenue with an expense level of $550,000. So if we set a revenue target of $3 million (FGR of 100%), given the above working capital turn rates we find that Growco now has free cash of $430,000 and a net profit after tax (at 30% Gross Profit) of $210,000.

This gives Ima the ability to lower average prices. She could have an across the board price reduction of 14% to yield a Gross Profit % of 18.4%, still break even on profitability and have free cash of $232,000. At the extreme, she could fund a price reduction of up to 22% to yield a Gross Profit % of 10.5%. In the latter case she would be sustaining an operating loss of $235,000 but her competitors will be hurting badly. Unless Growco's competitors have the same working capital configuration as Growco, they will be fast approaching insolvency if they tried to match Growco's prices. This is really what competitive strategy is all about: do something your competitors can't do and then drive home the advantage you have.

CONCLUDING COMMENTS

Because most businesses have to pay their bills before they get paid by their customers, they need to have funds available to cover these commitments. This is called working capital. As a business grows its need for working capital also grows and unless it is managed carefully the increased working capital can exceed the organization's ability to fund it. When this happens the business becomes insolvent and will fail without the injection of additional capital.

Some businesses don't need much working capital because of the nature of their operating model. That is, they don't have long lead times between when they have to pay for the resources they use and when they get paid by their customers. We refer to this lead-time as the cash operating cycle.

A well known example of how understanding this can lead to a sustainable competitive advantage can be seen with Dell Computer Corporation. Dell has an inventory turn of about 7 days, pays its suppliers on average at about 40 days and gets paid by its customers at the time it delivers its products which it can build on average within about 15 days of an order being received. Dell has negative working capital which means that it has the potential to grow at virtually an infinite rate. Even if it incurs a loss, Dell will always be cash flow positive as long as it continues to get sales. This gives it a very strong competitive advantage and is the reason it has been able to become one of the top 2 computer manufacturers in the world without needing to raise large amounts of equity capital.

In this article we introduced the concept of Fundable Growth Rate to give business owners a tool for financial management and defining strategy. This is the rate of growth in revenue that a business can sustain given the length of its cash operating cycle and its net profit margin.

The FGR is a single number summary that reflects the quality of an organization's financial management strength and the inter-relationships that exist between all of the elements of business including pricing, enterprise expenses, sales volume, credit control, inventory management and supplier relationships. Once you understand the real meaning behind the FGR and the relationships between the contributing variables you will be able to make informed decisions and pursue sensible competitive strategies.

The Growco case study reveals how important it is to think 'cash flow' as well as 'revenue and profit' when developing a financial plan for a business. It raises several key questions that every business manager should be thinking about and indeed, acting upon. Most business managers do not think in these multi-dimensional terms and that's why most businesses under-perform.

The FGR module which is part of Principa's GamePlan™ software application, makes it possible to quickly do the complex calculations involving the relationships between the variables that drive profit and cash flow.

If your accountant has given you this article he or she has this application and will be able to work with you to develop your GamePlan. Just like the coach who never lets a team take the field without a plan that reflects the team's strengths and weaknesses — a Game Plan.

With GamePlan you dramatically increase your chance of winning.