Performance Measurement System for Start-ups and Scale-ups

Running a startup or scaling up a business is akin to successfully landing or taking off an aircraft. Measurement systems help the company to know the course, correct direction and speed necessary to have a safe flight.

A simple set of integrative financial and non-financial measures, both leading and lagging indicators are required for the board and executives to guide the company.

In this paper we detail financial and non-financial measures that may be used by startups and scaling up companies.

Aishwarya Nair
Junior Consultant (Finance)
Browne & Mohan Consultants
Bangalore

SaiVinoth T.R.
Assistant Consultant (Sales & Marketing)
Browne & Mohan Consultants
Bangalore

Whether it is a startup or a growing company, measurement systems are required to act as guide posts. Measurement systems indicate the direction and pace at which the businesses are reaching their stated goals. The good old adage "What gets measured gets done", aptly sums up the role of performance measures. Designing effective performance measures requires appreciation of the industry and nuances. Performance measures differ among information intensive businesses, product oriented businesses, and service oriented businesses. To give an example, measuring the gross merchandise value (GMV) would be useful for an information intensive business, but itwouldn't make sense for a product oriented business such as a Medical devices startup. Scaling up is an important stage in the evolution of the company. Accounting literature has not addressed the performance measure systems for startups and scaling up companies. This paper is an attempt in that direction. We have developed an integrated financial and non-financial measurement framework that is required to guide, manage and control companies at these crucial stages.

Metrics for Start-ups

Table 1 presents comprehensive list of financial and non-financial measures for a startup.

Revenue growth

Apart from the actual revenue growth, you could use other revenue growth indicators which would provide additional insight into your performance.. In other words, keep a record of the gross merchandise value (GMV), whatever term this translates to for your business.Booking refers to the amount your customer is obliged to pay over the course of your contract regardless of when they're due. In this sense, bookings are a forward-looking measure that will help you to assess the future health of your organization. Billings which refers to cash collected in advance at the time of booking is another good measure.

Cash

Efficient cash management is essential for startups. The most useful cash flow measure for start-ups is the cash burn rate. Keeping a track of how much cash goes out every month is critical at this stage of business. It would also be useful to measure net burn which is all revenue minus gross burn (monthly expenses and cash outflows). This measure indicates how long the cash you have will last for you to run the organization. It is equally important to measure the rate at which you're able to earn cash to cover your monthly expenses.

Account Payables

In keeping with the above factor, it is equally important to monitor the account payables.You could measure the percentage of account payables to sales to understand the change in the level over the years and to compare with competitors within the industry.

Maximum Earnings Decline ratio

Maximum earnings decline ratio is calculated as 1-(Quarterly costs/ Quarterly earnings). It indicates how much you can afford to lose in terms of earnings before it becomes impossible for you to handle the costs for the quarter. It is a powerful metric that would help you detect areas that require attention before it's too late. Additionally, you could measure the maximum earnings decline ratio for each product line and product, thus enabling you to monitor the earnings more efficiently.

Customer acquisition cost

An important cost that startups should monitor is the cost of acquiring customers.CAC should include all costs incurred in acquisition including discounts, referral fees and so on. Additionally, keep track of the customer acquisition payback period which is the time you take to recover the amount spent on acquiring a customer. This should also reduce with time.A powerful tool you could use is the Pirate Metrics devised by McClure (2007).

Discount to Total sales(%)

The percentage of discount to total sales indicates a portion of the cost you've incurred to acquire and retain customers. In a healthy business, this should see a decline over time.

◗ Number of customers who received discount to total customers (%)

Another way to measure the efficiency of your sales and marketing process is to measure the percentage of customers who were acquired or retained through discounts. Fewer discounts would have to be given with improved efficiency.

◗ Number of customers acquired through freebies to total customers (%)

Giving away freebies could be a way of acquiring more customers for a startup. With time though, there should be a shift towards acquiring customers through proven quality standards rather than simply giving freebies.

◗ Number of active users to total users (%)

Measuring the number of active users to total users will eliminate the accidental one time users or first time users. It is more important to see a growth in active users than overall number of users.

◗ Delivery time per order

This is yet another measure of efficiency of production as well as sales. The aim here is not just to shorten the delivery time per order but to standardize the time taken in order to ensure accurate predictability and maximum efficiency.

◗ Number of deliveries on time to total deliveries (%)

Every business should strive to achieve a high degree of effectiveness in terms of consistently delivering orders on time. Such a measure could add to the value of your business and indirectly reduce the cost of customer retention.

◗ Number of orders that required rework to total number of orders (%)

Inconsistency in production could add to cost of poor quality, thereby affecting your margins. A competent production and sales process would enable you to save on this cost by reducing the number of orders that require rework.

◗ Net Promoter score

The net promoter score is a tool used to gauge customer satisfaction. It measures how likely it is that your customers would recommend your product or service to others. The net promoter score would be the percentage of customers who are likely to recommend or promote your product/service minus the percentage of customers who are unlikely to do so.

◗ Customer concentration risk

It would be unhealthy for any business to derive its revenue from a single or just a handful of customers.A lower customer concentration risk is generally preferred to mitigate the risk of losing customers and to reduce the customers' bargaining power.

◗ Number of awards and honorary mentions in a year

The awards and honorary mentions your business achieves could be used to both validate the performance of your business as well as to motivate your employees.

◗ Number of star VCs

Gaining funds from elite VCs such as Sequoia Capital and Helion Venture is yet another way of validating the performance of your business and the potential it holds.

◗ Funds from star VCs/star angel investors to total funds (%)

Apart from the number of star VCs or angel investors who have endorsed your business, the extent to which they have invested in your business can also play to your advantage.

◗ Number of star hires in a year

Star hires refer to the level of talent you manage to bring in to your business. Hiring seasoned experts would not only help you with specialized skills required for your business but would also add value to your business and attract more talent.

◗ Number of units sold per staff per month

The number of units sold per staff per month can be used as a measure of productivity of your staff. This should see an upward trend as efficiency improves and experience curve kicks in.

Metrics	Information Intensive Business	Product Oriented Business	Service Oriented Business
Financial Metrics:			
Revenue growth/ Real revenue growth	✔	✔	✔
Gross Merchandise Value (GMV)	✔	✔	✔

Bookings	✔	✔	✔
Billings			
Net cash burn ratio	✔	✔	✔
Net cash earned to cash required ratio	✔	✔	✔
Account payables to sales (%)	✔	✔	✔
Maximum earnings decline ratio	✔	✔	✔
Customer Acquisition Cost (CAC)	✔	✔	✔
Customer acquisition payback period	✔	✔	✔
Non-Financial Metrics:			
Rate of customer acquisition	✔	✔	✔
Rate of customer activation	✔		
Rate of customer retention	✔	✔	✔
Number of customer referrals	✔	✔	✔
Discount to Total sales (%)	✔	✔	✔
Number of customers who received discount to total customers (%)	✔	✔	✔
Number of customers acquired through freebies to total customers (%)	✔	✔	
Number of active users to total users (%)	✔	✔	✔
Delivery time per order	✔	✔	✔
Number of deliveries on time to total deliver-ies(%)	✔	✔	✔
Number of orders that required rework to total number of orders (%)	✔	✔	✔
Net Promoter score	✔	✔	✔
Customer concentration risk	✔	✔	✔
Number of awards and honorary mentions in a year	✔	✔	✔

Number of star VCs	✔	✔	✔
Funds from star VCs/star angel investors to total funds (%)	✔	✔	✔
Number of star hires in a year	✔	✔	✔
Number of unit sold per staff per month	✔	✔	✔

Table 1: Financial and Non-financial measures for a startup

Metrics for Scale-ups companies

Scaling up is not just about increasing the scale of production or entering more markets, it is about continuing to move ahead (Sutton &Rao, 2014). It takes to successfully plan and pursue a scaling up strategy, just enough stay ahead in the race and yet de-risk from overcapacity and technology obsoleteness. Table 2 presents financial and non-financial measures for a Scaling up company.

Contribution margin

Maintaining profitability to sustain in the long run becomes crucial. The contribution margin, or the profit per unit without considering fixed costs, is a good measure for scaling up. It indicates the profitability of a particular product or service. Benchmarking against similar products or services in the industry can be useful. For a services firm or a project related business, it would be beneficial to monitor the number of low margin projects taken up in relation to total number of projects.

Cost

As your business grows you should be able to take advantage of economies of scale. The additional contribution from increased units would cover fixed costs.

Account receivables

Scale-ups often face problems of bad debts leading to cash inefficiency. A good method is to measure account receivables greater than 90 days as a percentage of total account receivables. This would allow you to customize the terms of payment for each product line depending on the risk associated with them.

Revenue per employee

Monitoring the revenue per employee trend will enable you to understand whether the additional employees have brought in proportionate growth to the organization

Utilization rate

This metric is particularly useful for firms engaged in professional services. The utilization rate is the percentage of hours spent on billable projects to total number of hours worked. Each industry would have its own widely accepted target.

Return on Assets to Cost of Capital

As your business scales up, it is also useful to monitor the return on assets in comparison with the cost of capital. If the cost of capital is higher than the return on assets then it means that the capital invested is not being utilized efficiently.

Debt Free Cash Flow

Debt free cash flow is the percentage of cash earned that is not being used to pay off debt i.e., cash flow before finance costs after tax adjustments. A higher percentage of debt free cash flow is healthier as this can be used as internal funds for growth. If the debt free cash flow is low, you could consider making some changes in the debt structure to reduce finance costs.

Inventory turns

The inventory turn for a period is usually calculated as the cost of goods sold or net sales divided by the average inventory for that period. While scaling up it is important to have higher number of turns. Low inventory turns would indicate that more cost gets tied up in inventory. It would also help to explain market trends if demand for some products has been declining and you need to scale down your production of certain lines in order to remain profitable. Just-In-Time (JIT) is an efficient technique used by businesses to avoid costs tied up in inventory. Understanding your buffer stock level will take you a step further in proficient inventory management.

Customer retention cost

It is the cost incurred to keep your customer so that they continue to purchase from you. The ROI on customer retention cost should be higher than that on customer acquisition costs as customer retention costs are generally lower. For this reason it is beneficial to spend more efforts on customer retention. Having a low customer retention cost will directly contribute to higher lifetime value (LTV).

While a business transitions from start up to scale up there is a different set of non-financial measures that needs to be focused on. To assess sales, marketing, and, production performance the following measures would be useful.

Predictable deal velocity

Deal velocity could be measured as the number of units of product/service sold per week or the number of deals closed per week. It could go by different names such as sell through rate, closing rate or success rate. A scale up should be able to have a predictable deal velocity which would in turn help to make accurate financial predictions.

Number of repeat purchases

The number of repeat purchases is a good measure of the business' ability to retain customers. The higher the number of repeat purchase, the higher would be the lifetime value (LTV) of customers.

Number of orders with rework to total number of orders (%)

As with startups, scale-ups too should work on reducing the cost of poor quality by adopting best practices of production such as Total Quality Management (TQM).

Number of customer complaints per department

Monitoring the number of customer complaints per department is an ideal way of identifying departments that have been unable to scale up efficiently along with the rest of the organization and deserves more attention.

Number of non-critical product/service variants to total variants (%)

Providing a high number of product/service variants does not imply higher revenue or profit. In fact, for a scale-up it is essential to cut down on non-critical variants. This would lead to improved operations and margins.

Customer churn rate

The customer churn rate is the percentage of customers lost in relation to the total customer base. A rising customer churn rate would indeed be an area of concern and would require you to evaluate sales, marketing, production, and demand for your product/service.

Market concentration risk

For a scaling business, market concentration risk is just as important to monitor as customer concentration risk. If the business is concentrated in one or a few markets then market instability could stem the growth of the business.

Channel concentration risk

Channel concentration risk measures how concentrated or varied your channels of distribution are. For instance, if you have offline and online channels you could measure the percentage of revenue generated through both channels.

Revenue from top 5 customers to total revenue (%)

This is the percentage of revenue generated from the largest or top few customers to the total revenue. It is healthier for a business to have revenue streams spread out across customers.

Number of new geographical markets entered

For a business that is scaling up, rate of entering new geographical markets should be high to improve their presence and customer base. However, this should be done with careful research and planning.

Number of awards and analyst citations in a year

Scale-ups too can gain from higher number of awards and analyst citations as a tool for attracting more customers as well as to gain further funds if required.

Number of influencers on the board

It is always healthy to have independent influencers on the board who can give their expert views and to a great extend help in driving the business in the right direction during your scale-up phase.

A scale up should also focus on achieving high return on investment on recruiting process based on the following metrics.

Time taken to hire employee

It is crucial to strike the right balance between too much time and too less. An efficient hiring process would involve just the right time required to carefully evaluate candidates and to get them on board.

Cost of hiring employee

The cost of hiring employees is yet another factor that has to be monitored for effective hiring process. While not going above and beyond the reasonable cost, it is equally important to not compromise on the quality of hire to minimize the cost.

Quality of hire

Finally, we come to the quality of hire. This is the most crucial aspect of the hiring process. If you manage to consistently maintain the quality of hire then you could generate high return on investment of the recruiting process.

Metrics	Information Intensive Business	Product Oriented Business	Service Oriented Business
Financial Metrics:			
Contribution margin	✔	✔	✔
Number of low margin projects to total projects (%)			✔
Cost of goods sold to revenue (%)	✔	✔	
Account receivables > 90 days to total account receivables (%)	✔	✔	✔
Revenue per employee	✔	✔	✔
Utilization rate		✔	✔
Return on assets to Cost of Capital	✔	✔	✔
Debt free cash flow	✔	✔	✔
Inventory turns	✔	✔	✔
Customer retention cost	✔	✔	✔
Non-Financial Metrics:			
Predictable deal velocity	✔	✔	✔
Number of repeat purchases	✔	✔	✔
Number of orders with rework to total number of orders (%)	✔	✔	✔
Number of customer complaints per department	✔	✔	✔
Number of non-critical product variants to total variants (%)	✔	✔	✔
Customer churn rate	✔	✔	✔
Market concentration risk	✔	✔	
Channel concentration risk		✔	✔
Revenue from top 5 customers to total revenue (%)	✔	✔	✔
Number of new geographical markets entered	✔	✔	✔

Number of awards and analyst citations in a year	✔	✔	✔
Number of influencers on the board	✔	✔	✔
Time taken to hire employee	✔	✔	✔
Cost of hiring employee	✔	✔	✔
Quality of hire	✔	✔	✔

Table 2: Financial and non-financial measures for Scaling up business

Conclusion

Many senior managers acknowledge that inappropriate balancing of expected results with resources at hand or inappropriate alignment of resources and the activities are most common reasons for failure. Aligning the individual's role and responsibilities, ownership and accountability with the intended change or outcomes is a tough task. Measurement that improves managerial effectiveness, ownership and accountability in achieving results is needed to drive a startup or scaling up program.Businesses are bound to vary in terms of what they offer and how they bring it to the market. Thus, the set of metrics that is appropriate for a particular business will depend on the nature of the business and the stage of growth. The objective is to pick those measurements that are important for your business and to play your strengths from there. These metrics are intended to provide real insight into business performance and to guide businesses through these crucial stages. MA

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aishwarya@browneandmohan.com
svinoth@browneandmohan.com

Obituary

The Institute and its members deeply mourn the demise of CMA Nimai Pada Mukherjee, member of the Institute who left for heavenly abode on September 17, 2016. After his retirement from Coal India, he entered into practice as Cost Accountant. He had immense contribution in building up the Bhopal Chapter of the Institute and was also the past chairman of the chapter. May his family have the courage and strength to overcome the loss.