Created by:
Maine Venture Fund
Created August 2011

MVF Business Guide:
Key Performance Indicators

In this Business Guide, we look at *Key Performance Indicators* and how to use them to understand, monitor and improve your business performance. Research indicates that companies that continuously and rigorously measure their performance outperform the competition. According to a recent study, online-startups that consistently track their metrics and listen to customers have 400% more user growth. Key Performance Indicators are an extension of your typical financial reporting and are highly customized to measure your company's progress toward realizing its strategic goals.

At the Maine Venture Fund ("MVF"), we invest in high-growth Maine companies that have the potential to create strong returns and quality jobs in Maine, and thus contribute to Maine's prosperity. Once we invest, we provide business advice and technical assistance to our portfolio companies as well as access to an extensive network throughout Maine, New England and beyond. We consider companies in nearly any industry that can demonstrate the potential for high growth and public benefit. For more information, visit www.maineventurefund.com or call us at 207-924-3800.

For additional resources to help you grow and manage your company check out:

MVF Business Primer: Private Company Board of Directors
MVF Business Primer: Reporting to Directors, Advisors, and Investors
www.maineventurefund.com/for-companies

Table of Contents

Executive Summary ……..2

KPI Tracking Overview 3

How KPI Tracking is Used in Different Businesses 4

Getting Started with KPI Tracking...6

Defining the Scope & Setting Targets 8

Using KPIs to Drive Change 9

How to Design Reporting Dashboard 10

Appendices

Example 1: Online Advertising Company

Example 2: KPI tracking in a Start-up company (Blank Label)

Glossary of Example KPIs

Sample KPI Dashboard Report

Executive Summary

The use of Key Performance Indicators (KPI) tracking has become a very important method for reporting and improving ongoing performance for companies. A good KPI dashboard will give the management team and Board valuable insight on current performance and expected future performance. Only by actively measuring and seeking improvement opportunities can a company truly thrive in a competitive business world.

Research indicates that companies which continuously and rigorously measure their performance outperform the competition[1.] According to a recent study, online-startups that consistently track their metrics and listen to customers have 400% more user growth[2.] In addition, in order to create the most value for their portfolio companies, most of the top private equity (PE) firms expend considerable effort to design KPIs for each portfolio company that are focused and comprehensive[3].

Most early-stage small businesses can be tracked effectively on less than ten KPIs[4]. The steps to succeed in using KPI initiatives include getting started, assembling a KPI team, defining the scope, using the team effectively, getting the data right, presenting the KPIs and using KPIs to drive change.

Picking the right KPIs means picking metrics that really matter to a company and can lead to fundamental improvements to a company. A good KPI should meet the following criteria: relevant, clearly comprehensible, measurable, realistic, and timely[5].

Given the myriad benefits of KPI tracking, MVF would like to help its portfolio companies institute KPI tracking, and to improve financial reporting and analysis at its portfolio companies. This KPI information pack has been created to assist in that effort. This information packet will help you understand:

1. How KPI tracking can improve your business's performance
2. How to choose the right KPI for your business
3. How to design an effective KPI dashboard

---

[1] http://www.prweb.com/releases/2011/5/prweb8420489.htm
[2] http://venturebeat.com/2011/05/30/the-7-signs-of-failure-for-internet-startups
[3] http://corporatefinance.mckinsey.com/_downloads/knowledge/mckinsey_on_finance/MoF_Issue_22.pdf
[4] http://www.forsyths.com.au/files/docs/business performance KPIs - sept06 web.pdf
[5] http://en.q-bpm.org/mediawiki/index.php/KPI

KPI Tracking Overview

In KPI tracking, a company sets performance indicators and targets relative to a company's core business operations and strategic goals. The concept of KPI tracking originates from 1897 and the 80/20 theory of Italian economist Vilfredo Pareto.

According to Pareto, 80% of the wealth of a population was owned by 20% of the population. The Pareto theory has been widely applied to various business settings, for example, 80% of sales come from 20% of clients, 80% of the results come from 20% of the work, or 80% of the problem is caused by 20% of the causes. KPI tracking has been used to allow business managers to focus their valuable time and energy on the things that really matter to a company, i.e. the 20% part that creates the most value.

Summary:

- KPI tracking helps you focus your valuable time on things that really matter.
- KPI tracking identifies strengths and weaknesses.

Every enterprise should be managed around KPIs. In addition to helping managers focus on the right priorities, KPI tracking allows managers to identify growth and improvement opportunities. Comparing actual KPI metrics versus targets reveal both a company's real time issues and performance trends over time. While it is not uncommon for a high growth small business to have negative cash flow, if there are significant adverse departures from the forecast, the management and board can quickly identify the problem and find a solution. This type of information can separate businesses that are well managed from those that only hope they will make it in the marketplace[6].

[6] http://www.forsyths.com.au/files/docs/business performance KPIs - sept06 web.pdf

How KPI Tracking Is Used in Different Businesses

Given its importance, KPI tracking has been used in different business areas to measure and improve performance. For example, PE firms usually have the benefit of best-in-class KPI systems[7]. Research indicates that most PE owned firms are significantly better managed than government-owned, family-owned and privately owned firms because the PE owned firms tend to have adopted a comprehensive performance documentation process, and tough evaluation metrics, which are integrated across the short and long run, well understood by the employees and linked to firm performance[8]. In all, these PE firms are taking a very proactive approach to create value by dealing with obstacles quickly rather than waiting and hoping that the obstacles will go away.

Summary:

- PE firms are significantly better managed because they usually have the benefit of best-in-class KPI systems.
- KPIs vary according to the nature and characteristics of different businesses.

A KPI for many revenue stage startups is total accounts receivable, or days A/R, because the ability to manage cash flow is a critical success factor. For pre-revenue start-ups, the cash burn rate and cash runway (months cash remaining) are critical KPIs to understand and track. Research shows that many startups often fail one year after starting because of inappropriate financial and cash management. For example, a company may have too many bad debts in account receivables, and therefore constantly have cash shortage problems. It is critical for equity-financed companies to have a clear understanding of how much cash is being consumed, and what that means for the timing of the next financing event.

No KPI is applicable for every company, and therefore it is essential that a company chooses its KPIs according to the company's business model and stage, and industry and company specific situations. Some examples of KPIs that are particularly relevant and useful to early stage companies are provided in an attached KPI glossary.

KPIs can be categorized into financial and process KPIs. An early-stage company can target a few significant financial KPIs and a few significant process KPIs, and ensure that the KPIs reported answer critical questions about its revenue cycle performance. For example, if a strategic goal of a company is to be one of the most profitable businesses in the industry, its KPIs should relate to both revenue and profit.

---

[7] https://www.bcg.com/documents/file38219.pdf
[8] http://www.stanford.edu/~nbloom/PE.pdf

Fundamental financial KPIs can include measurement metrics such as days in accounts receivable, days cash on hand and net profit before tax etc. While tracking the basic financial KPIs are important, it is equally important to measure and track the process (non-financial) KPIs that directly drive and contribute to financial performance. Examples of process KPIs can include: number of new customers acquired, sales enquiry conversion rate, etc.

Getting Started with KPI Tracking

Once you are convinced of the value of KPI tracking, you can start to design a KPI initiative. The steps to succeed in KPI initiatives include the following: getting started, assembling the team, defining the scope, using the team effectively, getting the data right, presenting the KPIs and using KPIs to drive change.

In KPI tracking, more doesn't necessarily mean better (consider the 80/20 rule). KPI tracking is particularly important for start-up and early stage companies, in order to marshal scarce resources, and keep the company on track for success. Having a set of measurement metrics that you watch closely and that you feel are the key drivers of success helps maintain clarity[9].

Most small businesses can be tracked effectively on six to ten well-selected KPIs[10]. Rather than simply monitor standard financial metrics, highly effective companies focus on a few financial and operational figures that reflect the true value drivers of the business's long-term sustainable competitive position[11].

To pick the right KPIs, you can start with a top-down approach, asking yourself at the management team level:

1. What is the company's mission?
2. What are the company's strategic goals that drive the mission?
3. What are the Critical Success Factors (CSF) in achieving the strategic goals?
4. What financial and process KPIs should be tracked in order to measure performance of the Critical Success Factors?

Ultimately, KPIs show how well business process and operations related to CSFs are being executed. The following graph shows the relationship[12].

---

[9] http://www.bothsidesofthetable.com/2011/04/04/how-startups-can-use-metrics-to-drive-success/
[10] http://www.forsyths.com.au/files/docs/business performance KPIs - sept06 web.pdf
[11] https://www.bcg.com/documents/file38219.pdf
[12] http://www.mindtools.com/pages/article/newTMM_87.htm

Once you go through the process of generating the mission, strategic goals, and critical success factors of your businesses – the KPIs follow. Start by identifying as many potential KPIs that come to mind and pare down to the target number of 10 by reviewing each potential KPI. Keep only the KPIs that meet the following criteria[13]:

- ✓ **Relevance: Indicators must be relevant to a company's strategic goals and Critical Success Factors**
  - What critical success factor does the KPI measure?
  - How is the performance of the KPI relevant to the CSF, strategic goal and overall mission of the company?
- ✓ **Clarity: Indicators must be clearly comprehensible for staff**
  - What staff members have influence over this KPI?
  - Do those staff members understand the KPI, and the inputs and actions that effect performance of the KPI?
- ✓ **Quantitative: Indicators must be measurable**
  - How will you measure the KPI?
  - How often will the KPI be tracked? Monthly? Quarterly? Annually?
  - Is the KPI relevant over the tracking period?
  - How difficult is it to access the data need for the KPI?
  - Is the time it takes to measure the KPI worth the benefit?
- ✓ **Actuality: Indicators must be realistic so that they can be agreed on by employees**
  - Is there an available benchmark/target for the KPI? If so what is it?
  - Is the target realistic? What actions, inputs, factors contribute to meeting the target?
  - Who has ultimate responsibility over achieving the target? Does this person "buy-in" to the value of the KPI and target?
- ✓ **Timeliness: Indicators must tell the status of achievement in a timely fashion**

---

[13] http://en.q-bpm.org/mediawiki/index.php/KPI

- Are you able to measure the KPI in a timely manner, and in a way that can inform the necessary actions to improve outcomes?
- How will the information be used to effect change and performance?

As transparency of the KPI initiatives creates both a commitment and a sense of urgency, both of which are key drivers of success in startup businesses, the more public you can make your goals for the KPIs the better[14]. Your staff will be more likely to support the KPI initiatives if they are involved and engaged in the process from the beginning. In order to achieve this, you can establish a small KPI working team, and the team members should understand the fundamental processes currently in place within the revenue cycle of the company. You can assign KPI definitions and the development of data sources to members of the company, and even in very small organizations, several staff sharing the workload of the KPI initiatives produces more effective results than can be achieved by an individual working alone.

Defining the Scope & Setting Targets

The real value of KPI initiatives is that you can use information gained from KPI tracking to make management decisions, so any KPI should help the management team to answer fundamental questions such as why days A/R increased, why conversion rate is low or why cash is under budget. The goal is to identify the gap of current company practice and target performance standard, and come up with solutions to address the gap and drive performance change to the target or best practice level.

As mentioned before, you manage what you measure. For example, if you've got direct sales in your company, you may want to have sales performance metrics (i.e. revenue / sales person, leads, win/loss ratios, etc.) in place. If you start measuring calls / day, call length etc., then you'll probably notice a change in sales person behavior, for example, call volumes might incentivize your sales representatives to get off the phone quickly, which in some businesses is the wrong strategy[15]. In this case, one would need to have a review to determine the objectives of the company, and reset the metrics and KPIs to drive the desired behavior[16].

To minimize the need to rework and correct KPI reporting later, you should validate the data definitions and sources to ensure that the source information, formula and calculations are all correct.

In addition to determining what KPIs to track, you need to set a target value for each chosen KPI. The target value for most financial KPIs such as cost of sales, EBITDA, and gross margin % can be obtained from your forecasts. If you have a good relationship with a commercial banker, you may also be able to get industry and benchmarking data from them. The target should be a stretch but realistic. For other KPIs such as customer acquisition costs or churn rate, you could set the target based on your industry experience or based on quality industry data. For example, industry associations may have benchmarking data that you could use.

---

[14] http://www.bothsidesofthetable.com/2011/04/04/how-startups-can-use-metrics-to-drive-success/
[15] http://www.bothsidesofthetable.com/2011/04/04/how-startups-can-use-metrics-to-drive-success/
[16] http://www.bothsidesofthetable.com/2011/04/04/how-startups-can-use-metrics-to-drive-success/

Using KPIs to Drive Change

As an example, consider the KPI conversion rate on daily traffic of an e-commerce website. The KPI is defined as the number of visitors that take a certain desired action when visiting the website such as purchasing a product[17]. It is calculated by dividing the number of customers buying a product by the total daily traffic. This KPI is an indicator of how effectively the company is converting traffic to sales revenue. A low conversion rate indicates that company needs to take measures to improve this KPI, for example, identify leaks in its conversion funnel, and find ways to fix the leaks.

Best Practices:

- More KPIs does not mean better; consider 80/20 rule
- While financial KPIs are important, it's also critical to track process KPIs that are fundamental drivers of a business
- Ensure that each KPI meets the five criteria: relevance, clarity, quantitative, actuality and timeliness
- Validate data definitions and sources to minimize the need to rework on the KPIs later
- Set stretch yet realistic targets
- Report your KPIs consistently and regularly
- Constantly review and update your KPIs as needed

To show management's commitment to the KPI initiative, the management team can share the KPI results at regular staff meetings, and brainstorm solutions together to improve performance. The tracking period varies with different KPIs. Most KPIs should be tracked on a monthly basis. When a target is not met, effort needs to be expended to find the root causes, to determine corrective actions, and monitor the results.

A common mistake is to establish KPIs but then fail to establish diligent routines to review, evaluate, etc. If you are not meeting as a team regularly to discuss your KPIs, discuss how you're doing, and discuss what needs to change, then you'll never reach your destination, and you'll have no idea when you're off the right track[18]. KPI initiatives can be considered successful if they can help you identify specific areas for improvement, and then bring performance to the target or best practice level. Also, KPI tracking is not a static process. KPIs that really matter may change after six months or a year. As a result, you need to constantly review the KPIs, drop the outdated ones and revise others that are no longer relevant.

---

[17] http://www.smartKPIs.com/kpi-key-performance-indicator/Conversion-rate-77.html
[18] http://www.bothsidesofthetable.com/2011/04/04/how-startups-can-use-metrics-to-drive-success/

How to Design Reporting Dashboard

Once the KPI metrics are identified, you can start designing a KPI reporting dashboard. The design should be kept simple and transparent. A good dashboard should be a one-page display, capable of showing context, trends, and potential relationships between key measures. A sample KPI dashboard report can be found in the appendix. A second reporting document should explain how each KPI will be calculated, what each one means, what factors impact the KPI measure, who is ultimately responsible for success, and how the KPI will be used to identify improvement opportunities.

Often, charts and graphs are the most effective way to display KPI results over time. A list of graph types and what they are best for displaying can be found below[19]. (More detailed information regarding chart types can be found at link in footnote #26)

Chart Type	Typical Applications	Variants, Remarks	KPI Example
Area	Cumulated totals (numbers or percentages) over time	Percentage, Cumulative	Accounts Receivable aging report – cumulative to represent total A/R divided by age
Column/Bar	Observations over time or under different conditions; data sets must be small	Vertical (columns), horizontal (bars); multiple columns/bars, columns/bars centered at zero	Actual Sales vs. Budgeted Sales
Segmented Column/Bar	Proportional relationships over time	May be scaled to 100%	Company's market share overtime. Representation of a company's different revenue streams by quarter as a share of total revenues.
Frequency Polygon	Discrete frequency distribution	Connect data points through straight lines or higher order graphs	Number of Sales (Transactions) by Price range
Histogram	Discrete frequency distribution	Columns/bars without gaps- Data that follows a distribution curve- such as a bell curve	Product defects per production run
Line, Curve	Trends, functional relations	Data point connected by lines or higher order curves	Sales growth overtime

[19] http://www.sapdesignguild.org/resources/diagram_guidelines/charts_bk.html

Chart Type	Typical Applications	Variants, Remarks	KPI Example
Pie	Proportional relationships at a point in time	Segments may be pulled out of the pie for emphasis (exploded pie chart)	Market share in current time period
Scatterplot	Distribution of data points along one or two dimensions	One-dimensional, two-dimensional	Number of sales calls by week
Map	Typically used for geographical data; can also be used for parts of devices, human or animal bodies	Useful, if an analog relation can be used for representing data	# of customers by region

Appendix

Example 1: Online Advertising Company[20]

KPIs chosen: customer acquisition rate and customer acquisition cost

For an online advertising company, to understand how the business is acquiring new customers, you would want to track: 1) the number of customers you are adding every month (or every day depending on your business model), and 2) the cost associated with the acquisition. Comparing the actual value with your forecasted or target value will reveal whether your business is heading in the right direction.

How to track this KPI?

The first step might be to break custom acquisition down by channel. For an online advertising business, the channels could include Search Engine Optimization (SEO), Search Engine Marketing (SEM), affiliate deals, and customer referral program etc.

The next step is to calculate the cost to acquire by channel, which might indicate whether you have a scalable business. This is particularly relevant for early stage companies. If you cannot acquire paying customers in a cost effective manner, it is likely that you will burn through cash faster than expected.

It is important to calculate the "true" cost to acquire customers. For example, to calculate the acquisition cost on SEO, you will need to allocate the time/costs of developers, and content people working on SEO programs. Here is an online tool to calculate customer acquisition cost:
http://www.panalysis.com/customer_acquisition_cost/index.php?showresults=1

How to use the KPI to drive change?

After having information on your cost-to-acquire, you can have a more informed and intelligent discussion on how to more effectively manage your acquisition costs.

---

[20] http://www.bothsidesofthetable.com/2011/04/04/how-startups-can-use-metrics-to-drive-success/

Appendix

Example 2: KPI tracking in a Start-up company (Blank Label[21])

Situation

Blank Label (http://www.blanklabel.com/) is a custom dress shirts startup that allows customers to design their own dress shirt. Since the company started, Search Engine Optimization and media relations have produced strong web traffic trends. The management team is delighted to see the strong traffic, and now needs to consider which factors matters most to the operations of the company. They need to determine the right KPIs to ensure the company is on the right track.

Solution

Many businesses such as websites and blogs thrive on lots of web traffic. Blank Label is an ecommerce site and what matters most to the company is not unique visitors or page-views but sales. To increase sale revenue most effectively, Blank Label needs to capitalize on the web traffic it receives and convert visitors into buying customers. Therefore, it tracks increases in web traffic as one KPI, but, importantly, it sets customer conversion rate as another KPI. Based on tracking the conversion rate KPI, Blank Label came up with a number of steps to increase the conversion rate.

Discussion

Deciding which KPI to track is not an easy process. In developing the KPI tracking system, the company must think through the critical questions about the business, for example: what is keeping business alive, what is the end goal, and what are the key success factors. For Twitter, the end goal can be users. For media outlets that run on ad-revenue such as The Next Web, page-views are the end goal. For Blank Label however, paying customers is the end goal, therefore customer conversion rate is a meaningful KPI to track. Only by actively measuring and tracking the conversion rate and seeking improvement opportunities in this area can Blank Label thrive.

[21] http://thenextweb.com/au/2010/05/17/startup-marketing-lessons-learned-know-your-kpis/

Appendix

Glossary of Example KPIs

The following table is a list of common KPIs. This table is meant to provide a starting point when considering your company's KPIs. There are an endless number of potential KPIs and they differ based on the business model and mission of each company. This is by no means a comprehensive glossary.

Category	Name	Definition	Formula	Why it is important	Suggested frequency for tracking
Financial	Days A/R	It is the average number of days a company takes to collect payments on goods sold.	(Average accounts receivable * 365) / sales revenue	It is closely related to cash flows and sales revenue. High numbers indicate collection problems and significant pressure on cash flows; lower numbers are better, however too low numbers may indicate overly-strict credit policies that might prevent higher sales revenue.	Monthly
Financial	Days A/P	It is the number of days a company takes to pay its vendors.	(accounts payable / cost of goods sold) * 365 days	Higher numbers are better for cash flow. As a rule of thumb, a well-managed company's days in A/P do not exceed 50 days.	Monthly
Financial	Days of inventory on-hand	It is the number of days a company takes to sell inventory.	(Inventory/ COGS)*365 days	As a general rule of thumb, lower numbers are better.	Monthly
Financial	Cash burn	It is the rate at which a new company uses up its venture capital to finance overhead before breakeven.	It is measured in terms of negative cash flow per month, e.g. a burn rate of $50k means that the company is spending $50k per month in excess of any cash it is generating.	If the burn rate begins to exceed forecasts, the usual recourse is to reduce the burn rate by reducing costs, usually staff.	Monthly
Financial	Days cash or runway	Closely related to cash burn rate, this KPI measures the number of days until the company will need additional capital.	Available capital/ [monthly cash burn*12/365]	It is essential for equity financed companies to have a clear indication of when additional capital will be required.	Monthly

Category	Name	Definition	Formula	Why it is important	Suggested frequency for tracking
Financial	EBITDA	It is earnings before interest, taxes, depreciation and amortization.	Profit Before Taxation (PBT/EBT) + net interest and amortization	EBITA is most commonly used when equating profitability and efficiency ratios for companies.	Monthly
Financial	Net profit	It is a measure of the profitability of a venture after accounting for all costs.	Sales revenue - total costs	Net profit targets can be strongly correlated with Internal Rate of Return (IRR).	Monthly
Financial	Gross margin	It is the percent of revenue that the company retains after incurring the direct costs associated with producing the goods and services sold by a company.	(Revenue-COGS)/revenue	The higher the percentage, the more the company retains on each dollar of sales to service its other costs and obligations.	Monthly
Financial	Current ratio	It measures a company's ability to meet short-term debt obligations.	current assets/current liabilities	It is a useful metric to gauge liquidity if used jointly with quick Ratio. The higher the current ratio, the more liquid the company is; if it is less than 1, then the company may have problems meeting its short-term obligations.	Monthly
Financial	Quick ratio	It is a measure of a company's liquidity and ability to meet its obligations.	(current assets - inventories)/ current liabilities	Higher number means stronger financial health. It is a useful metric to gauge liquidity if used jointly with current ratio.	Monthly
Financial	Revenue from new business operations	It is the total revenue generated from new services and products sales or by new business lines.	price/unit * # units sold	Tracking this KPI provides insights on whether the new business operations are performing well, and if not, find solutions to improve sales.	Monthly

Category	Name	Definition	Formula	Why it is important	Suggested frequency for tracking
Financial	Recurring Revenue	It means the portion of a company's revenue that is predictable, stable, and can be counted on in the future with a high degree of certainty.	For example, if an affiliate program that a company participates in pays the company $800 every month, the company can consider this recurring revenue because this income is predictable as long as the company participate in the program.	Recurring revenue is important to long-term company success.	Monthly
Financial	Avg. revenue per customer type	It is the average revenue generated by a customer type	The average revenue generated by a customer type	According to the 80/20 rule, in most businesses, 20% of the customers generate 80% of the revenue. By tracking this KPI, a company can identify the most valuable customer type, and focus the limited resources on it.	Monthly
Process	Capacity	It is the highest sustainable output rate that one company can produce with its current resources, product specifications, etc.	Calculated as the maximum number of units per month, quarter, or year. This can also be measured as % capacity.	The management needs to be aware of capacity limitations for key machines, and tracking this KPI will help focus on new capital expenditure.	Monthly
Process	Customer conversion rate	It is the percentage of visitors that take a certain desired action when visiting a store/website such as purchasing a product.	The number of customers buying service/ the number of total daily traffic	It is an indicator of how effectively the company is to converting traffic to sales revenue. Higher number is better.	Monthly

Category	Name	Definition	Formula	Why it is important	Suggested frequency for tracking
Process	Salesman metrics	It measures the performance of salesman in the company.	revenue /sales person, leads, # of calls per salesperson, win/loss ratios, etc.	If there is a wide variation, you should probably take time to understand why that is. For example, if people who make fewer calls have higher win rates, then that's ok. But if there are salespeople with low call volume and low win rates, then there is a problem.	Weekly
Process	% close rate	It is wins per proposal.	# of new customers / total # of proposals	A low close rate may reveal some fundamental problem, such as that your pricing is not competitive or your actual product / service didn't live up to expectations.	Monthly
Process	Average proposal Length	It's the number of days between first sales contact and revenue received	# days between first sales contact/signed agreement and revenue received	If the average proposal length is too long, this may indicates inefficiencies in the business process.	Monthly
Process	Churn rate	It is percentage of customers who end their relationship with a company.	The number of customers who leave/total number of customers. Retention rate = 1-churn rate	There are many reasons that people will not stick around, for example, low product quality, inability to understand the value of the product, etc. It's important to a company to understand the situation and come up with solutions to fix the problem.	Monthly

Appendix

Sample KPI Dashboard Report

Table 1: Picking the right KPIs – How they relate to a company's mission, goals, and critical success factors

Company Overview	Mission	Strategic Goals within the next 3 years	Critical Success Factors (CSFs)	Financial KPIs	Process KPIs
A start-up company manufacturing reusable aluminum drinking bottles, which can be used in challenging environments. The company has developed three product lines: A, B and C.	To provide our customers with superior quality and service, competitive pricing, and long-term value.	Generate financial return for investors and shareholders	Overall financial health	Cost of Sales Operating Expenses Gross margin % EBITA Days A/R Cash burn and runway	
		Enhance product profile and realize breakthrough in sales	Customer acquisition	Revenues	Number of new customers acquired
		Improve manufacturing process to allow for maximum quality and efficiency	Manufacturing process management		Defects per assembly

COMPANY ANALYTICS 2011 JUNE

Executive Summary

EDITDA decreased as a result of the decrease in sales and increase in cost of sales. Total revenue decreased by 5% because of the further decline of sales of product C. Possible ways to improve include devoting more sales and marketing resources to product C. Due to the increase of the price of raw materials, the cost of sales increased by 18%, contributing to lower gross margin %. We should explore ways to reduce cost of sales, for example, negotiating order size with suppliers to receive a volume discount. Both cash burn and run way are within tolerance. By improving our days A/R to 45 days, we could generate $xxxxx additional cash. We could establish credit limits for customers, and time billings so that they receive bills before their payment cycles. Defects per assembly further decreased as a result of the quality improvement plan enacted earlier this month.

Condensed Income Statement

	Month Actual	Month Plan	Actual Year To	Year To Date
Revenue	$380,000	$400,000	$ 1,407,795	$ 1,402,688
Cost of Sale	$200,000	$ 169,000	$ 634,908	$ 708,749
Gross Margi	47%	58%	54%	49%
Operating Expenses	$200,000	$304,000	$ 1,285,000	$ 1,296,000
EBITDA	$ (20,000)	$ (6,676)	$ (512,535)	$ (602,498)

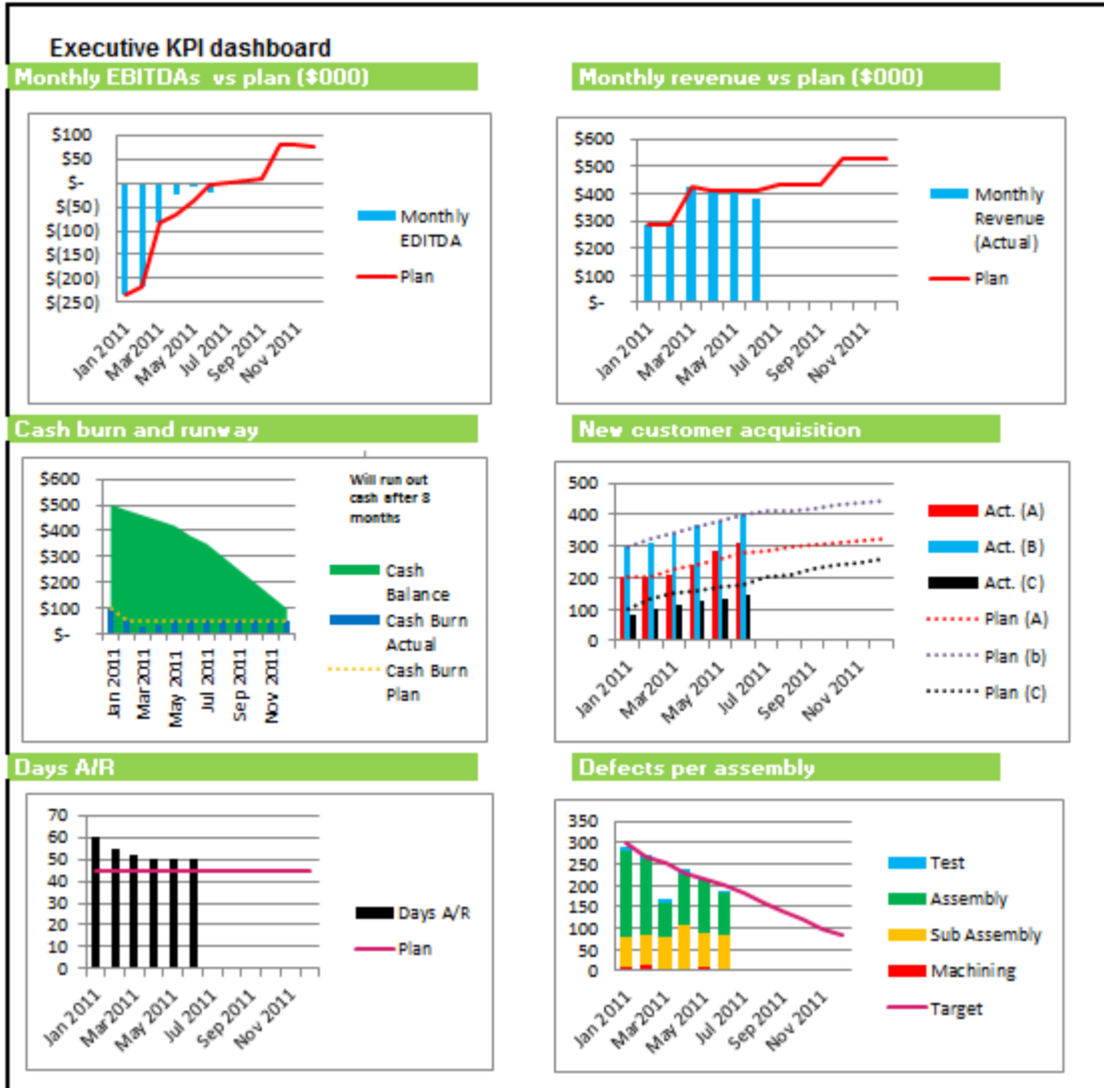

Table 2: Reviewing Each KPI against the essential KPI characteristics

KPI	Relevance	Clarity	Quantitative	Actuality	Timeliness
Revenue	A company must bring in money to generate a profit. For startup companies that have yet to be profitable, revenue can sometimes serve as a gauge of potential profitability in the future.	The sales and marketing team has influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	This KPI should be tracked on a monthly basis. To measure it, first you need to understand the revenue drivers of your business. At the highest level, you can measure things such as price/unit and units sold. To generate more insight, you can segment the number and break it up into its component parts, and compare the numbers to historical metrics. Here are some possible segments to explore: product line, distribution channel, region, and customer type etc.	This KPI should be tracked against the forecasted revenue. As the sales and marketing team has ultimate responsibility over achieving the target, getting their buy-in is important.	If the actual revenues are below target, you need to isolate the key driver(s) causing bulk of the problem, and explore possible resolutions. In this example, the revenue has been declining. After segmenting the revenue by product type, it was discovered that product C only contributes to 20% of the total revenue (the target is 30%) in June. Mathematically product C is what is causing the problem; why has the number declined in the context of the marketplace. For example, it could be that a competitor has lowered the price of similar products to product C, or there is insufficient sales and marketing effort for product C. Once the root cause is known, it is easier to come up with ways to improve the performance.
Cost of Sales	An integral part of running a business is tracking the cost of sales, because tracking it can help you manage available resources more responsibly, so that a maximum return utilizing a minimum of resources can be achieved.	Manufacturing team has influence on this KPI, and how this KPI is measured should be clearly comprehensible for them.	Cost of sales is also referred to as Cost of Goods Sold (COGS). This KPI should be tracked on a monthly basis. It is the sum of direct material, direct labor, and factory overheads incurred in making a product. Cost driver analysis can help you understand what makes a particular kind of cost go up or down.	This KPI should be tracked against the forecasted cost of sales. As the manufacturin g team has ultimate responsibility over achieving the target, getting their buy-in is important.	In this example, cost of sales increased in June. Conducting cost driver analysis[22] can help you better understand the reason. *Materials: commodity prices, product formula, etc. *Director labor: labor policies, wage rates, throughput rate etc. *Overhead: capacity, utilization, staff size, allocation methods, etc. After analyzing the cost drivers above, it is determined that the increasing price of raw materials is causing the problem. Negotiate with suppliers. Estimate the quantity of each material that is needed over the next 12 months and use this value as leverage to ask for improved pricing.

[22] Tuck Casebook 2009.

KPI	Relevance	Clarity	Quantitative	Actuality	Timeliness
Operating Expenses	Operating expenses are expenses that arise during the ordinary course of running a business. High operating expenses can be a big problem for almost any business. Tracking the operating expenses is one of the key ways to keeping your business viable and consistently making **a** profit.	All staff members can have an influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	This KPI should be tracked on a monthly basis. Operating expense consists of the following: *Marketing *Sales commission and bonus and other sales costs * Research and development costs * General & Administrative (salaries paid to non-sales employees, legal fees, bank charges, office supplies, electricity bills, etc.)	The KPI should be benchmarked against your forecasted operating expenses.	If operating expenses is deviating from the forecasted figure, then you should take measures to reduce the expenses, for example, postpone R&D, reduce marketing expenses etc. In general, strive to keep operating expenses as low as possible while not damaging the underlying business.
Gross margin %	Gross margin % is the percent of total revenue that the company retains after incurring the direct costs associated with producing the goods and services sold by the company.	Sales and marketing, and manufacturing teams have influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	This KPI should be tracked on a monthly basis. The formula is (Revenue-COGS)/Revenue. The higher the percentage, the more the company retains on each dollar of sales to service its other costs and obligations.	The KPI should be benchmarked against the forecasted gross margin %.	In this example, the declining gross margin % is caused by both decreasing revenue and increasing cost of sales. You can segment the revenue to find what's mathematically causing the decrease, and then analyze the cost drivers to find out the cause for the increase in the cost of sales.
EBITDA	EBITDA is most commonly used when equating profitability and efficiency ratios for companies.	All staff members in the company have influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	This KPI should be tracked on a monthly basis. It is earnings before interest, taxes, depreciation and amortization.	The KPI should be benchmarked against the forecasted EBITDA.	Declining EBITDA is a warning sign. Again you need to isolate the key driver(s) causing bulk of the problem, and explore possible resolutions.
Days A/R	Days A/R is closely related to cash flows and sales revenue. This metric is important as the ability to manage cash flow is a critical factor in the success of early stage companies.	The accounting and finance teams have influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	This KPI should be tracked on a monthly basis. It is the average number of days a company takes to collect payments on goods sold.	The KPI should be benchmarked against the industry standard.	High numbers indicate collection problems and significant pressure on cash flows; lower numbers are better, however too low numbers may indicate overly-strict credit policies that might prevent higher sales revenue. Possible ways to reduce days A/R include establishing credit limits for customers, and timing billings so that they receive bills before their payment cycles etc.

KPI	Relevance	Clarity	Quantitative	Actuality	Timeliness
Cash burn and runway	As it often takes a while for many start-ups to generate cash from operations, their survival depends on having an adequate supply of cash to meet expenses. An important KPI for start-ups that are not yet cash-flow positive is the cash burn rate.	All staff members can have an influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	The KPIs should be tracked on a monthly basis. Cash burn rate = all sources of current and expected income or revenue (not current cash on hand) - monthly operating costs, including interest and taxes (but not including depreciation or amortization. "Runway" is months until cash is depleted. It is calculated as cash balance divided by monthly cash burn.	The goal is to not deplete cash before receiving new capital. Constantly monitor expenses month-by-month, and continually compare actual expenses to the forecasted ones.	Cash burn is usually tracked monthly. In some crisis situations, it might be measured in weeks or even days. If companies burn cash too fast, they run the risk of going out of business. It is therefore best to control expenses and keep the cash burn rate as low as possible. In this example, the run way is not long, yet the burn rate is quite small. By improving the burn rate the company can push out additional capital needs.
Number of new customers acquired	To realize breakthrough in sales, it is important for the company to track the number of new customers acquired.	The sales and marketing teams have influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	This KPI should be tracked on a monthly basis. In this example, to generate more insight, the company can break the number of new customers acquired down by product line.	The KPI should be benchmarked against the forecasted value.	In this example, product C has the lowest number of new customer acquired in June when compared to product A & B, and the number is below target. Therefore the company should find solutions to improve the number, for example, enhance the promotion and marketing efforts for the product.
Defects per assembly	Tracking defects can help improve product quality, and reduce costs in the form of scrap, production downtimes, product recalls and warranty costs.	The manufacturing team has influence over this KPI, and how this KPI is measured should be clearly comprehensible for them.	This KPI should be tracked on a monthly basis. It is counted as the number of defects per assembly.	The KPI should be benchmarked against the forecasted figure.	Defect prevention can be implemented by preparing an action plan to minimize defects, generating defect metrics, defining corrective action and producing an analysis of the root causes of the defects. It's a good practice to include production workers in this discussion and reward them for innovative ideas to reduce defects.