The history of break even analysis

The initial capital requirement is estimated to be $50, 000 to $60, 000. The sales margin is expected to be 7-10%, whereby each business segment contributes differently to sales and earnings. The classical logistics segment, of all segments, will have an average contribution to sales in relative terms (6. 5%), but given the high sales volume, the largest in absolute terms. Revenues from transportation services can be differentiated into those from low priced single services to comprehensive and long-term transportation. The sale of services is expected to generate a 12% to 15% sales margin, while the margin from sales of services is expected to be closer to about 10%. Figure 7. 1 shows the source of revenues by segment during the start-up phase.

Depending on the initial investment sum, cost and revenue estimates vary. Figure 7. 2 shows the expected relationship of cost and revenues. As can be seen, the relationship is not linear everywhere, but costs decrease relative to sales at an initial investment of $50, 000. This effect is due to the better utilization of capacities in personnel at rising revenues at constant cost. If capacity is fully utilized, additional personnel must be recruited. At an investment sum of $100, 000, administrative costs are expected to return to a linear relationship of sales. At sales levels between $1, 000, 000 to $2, 000, 000, costs increase by the factor 1. 85. The cost revenue relationship is important, not only during the start-up phase, but also for planned further expansion. Often such expansion strategies are based on this relationship. Other industries are able to generate cost savings of 30-50% during expansion periods, whilefor the logistics industry, this factor is close to 15%. At a specific size, this relationship reverses because administrative costs rise

sharply. This affects small businesses between 10 and 20 employees most severely.

Investment Plan

The investment plan comprises primary capital needs for the foundation and operation of an international logistics company with different products and services for sale. The plan also includes initial marketing and sales promotion expenses.

Break-even Analysis

The break-even analysis shows how earnings rise as a function of sales. The break-even point is the point at which revenues from sales cover total costs (fix costs and costs rising with sales). This analysis is important for the development of the liquidity plan. If the break-even point is not achieved, in the long run the business loses liquidity and may become insolvent. This requires that a critical amount of revenues must be generated.

At sale revenue of $600, 000 and given fixed costs, the business will generate a profit. Fixed costs are estimated at $120, 0000 to $130, 0000 and variable costs at $480, 0000. At realizable revenue of $10, 000, 000 after 2-3 years profits will rise to $700000 pre-tax. This represents an earnings margin of 10% pre-tax and 7% after-tax. These estimates are realistic in this market segment. Increasing sales volume will increase pre-tax earnings margins, but this development reverses when administrative costs begin to rise sharply. Up to a sales volume of $3, 000, 000, earnings margins rise to 12. 5%, after which the margin decreases to constant 11. 5%.

Figure 7. 3 shows at which critical sales volume the business generates a profit. This serves as a base for a pricing strategy. Additionally, the graph shows the amount of sales at which a marketing campaign can be run profitably.

Liquidity Plan

The liquidity plan shows the amount of finances necessary to assure permanent liquidity of the business. The plan is based on 4 representative months of a typical business with 3 to 5 employees, annual sales of $1, 300, 000 and net profits of about $300, 000. Revenue estimates are drawn from a standard normal distribution.

Earnings Plan

The earnings plan shows the results from ordinary operations. The plan is based on the first 4 years of business. Revenue estimates are drawn from a normal distribution with an estimated growth rate of 20 to 30%. Figure 7. 4 shows profit over time.

Risk Analysis

The risk analysis considers critical factors that may lead to a failure of the business concept. Such factors can involve failures during the implementation phase, as well as during operations. Such potential factors are ordered

according to the probability at which they can arise. Shown is the key factor that led to the failure only. Data are drawn from questionnaires of 10 logistics

Businesses with comparable product offerings and revenue- and cost structures

That went bankrupt during the last 3 years, as well as analyses of different research institutes.

Insufficient demand: This is the most frequent reason that leads to business failure. This includes permanently low demand, as well as a temporary collapse in demand. Often demand estimates were too optimistic at the outset. Such failures might also come from external shocks instead of operating deficiencies. 19% of businesses with insufficient demand go bankrupt. 50% of these businesses report that, once demand slacked, they did not react accordingly, because they believed that this phenomenon was only temporary. Since the expected frequency of customers during the start-up phase is still low, a critical success factor is to focus promotional effort so as to generate customer loyalty early on, which will help minimize the effects of demand fluctuations. This is also important for the future development of the business.

Behavior of Competition: Due to low entry barriers, additional businesses can enter the market at low cost. Approximately 16% of insolvent businesses were driven out of the market by that competition. A better service concept, innovative ideas and concentration on core businesses are easy means for an entrant to gain a competitive edge. Personnel and capacity utilization:

Often personnel capacity cannot be adjusted easily when demand slows down. Currently, business services have a capacity utilization rate of personnel of 70%, i. e. 70% of employee working hours can be directly credited to sales. At small businesses this value is often lower, which means that 30% of working hours arise without generating any further revenue. 13% of such businesses go bankrupt for this reason.

Liquidity constraints: Another frequent reasons for bankruptcy is insufficient liquidity. In that case, it is possible that all liquid funds are used to cover losses or that liquidity needs were planned too tight. To be able to flexibly react to changing liquidity needs, it is important that sufficient funds be planned, even during the start-up phase. Thus, 5-10% of the investment sum should be held as liquidity reserve permanently. 13% of insolvent businesses reported liquidity as the reason for bankruptcy.

Over-indebtedness: Many business are run on a small equity base. The majority of investments are funded by debt. If the business becomes unprofitable, debt obligations cannot be covered. Little more over 10% of insolvent firms reported over-indebtedness as the reason for going bankrupt. It is therefore important that a share of earnings is retained for debt service.

Macroeconomic Conditions: In a cyclical downturn, revenue expectations may not come in according to expectation. Although this factor does not affect the business in itself, it does have an impact on profitability, liquidity and leverage. Costs remain constant during such periods, but revenues typically decrease which affects overall profitability. 10% of all insolvent

businesses report that they went bankrupt due to macroeconomic conditions, although the relevant indicators of the business looked healthy.

Location and market: The market of the business and the selection of the right potential customers is an important success factor and one of the fundamental decisions that has an impact on the future prosperity of the firm. Therefore, a careful analysis is necessary. More than 10% of insolvent businesses reported that they went bankrupt because of the wrong market selection. Often start-ups did not consider that, even when the choice of market may not be wrong at the outset, it may later become so when economic conditions worsen. This may be due to structural changes or different interest of customers.

Wrong Business Decisions: Often wrong business decisions and difficult situations go unnoticed for some period, which can lead to a failure of the business. A critical and independent reflection of a decision is critical factors to determine the value of a management decision and evaluate the business' profitability. Studies have shown that many businesses fail in their start-up phase because of management's inability to make sound business decisions, while once a business is settled, such mistakes are very rare. A critical management instrument is the ability to detect potential failures and problems. Certain key figures can help measure this ability and objectively determine a decision's chance for success. Small businesses should use such indicator ratios to assess their

Business outlooks. Figure 7. 5 shows the relative importance of each factor for businesses that went bankrupt. The numbers are based on the most

relevant reason that triggered bankruptcy, but not the reason responsible for bankruptcy. External factors that changed the competitive environment and changing macroeconomic conditions were the most important reasons relative to internal factors

Sources

http://www. storeboard. com/blogs/business/business-plan-template-for-accounting-services-sample-only/134

http://www. docstoc. com/docs/11207319/Business-Plan-for-a-Logistics-Company