ISO 9001:2008 and Value Creation

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ISO 9001:2008 is based on the process approach to quality management. The process approach can be used as a means to identify and manage improvement opportunities. By focusing on processes companies can manage quality as opposed to assuring quality, and continually improve their organization to better meet the needs of their customers. With its process focus ISO 9001:2008 provides a strong foundation for implementing continual improvement thereby creating value.

One of the key elements of successful continual improvement is to understand the direct relationship that exists between continual improvement and creating value. Because value creation is a function of profitability and growth, Net Present Value (NPV) is a critical metric of the improvement process because improvement efforts should contribute to the revenue growth and profitability of the organization. NPV can be used to identify the value streams having the greatest impact on profitability and revenue growth. NPV has a high correlation with value creation therefore making it a critical metric for driving continual improvement efforts.

Case I

Company A, a $50 million manufacturing firm, is interested in implementing ISO 9001:2008 to not only improve quality and customer satisfaction but to reduce the cost of poor quality (COPQ). A conservative estimate of the cost of poor quality in the organization is $10.0 million. Reduction in COPQ over the 3-year life of certification will result in expected cash flows as follows:

Year	**Net Cash Inflows** (COPQ Reduction)
1	$500,000
2	$750,000
3	$1,000,000

Initial cash outflow as a result of the investment consisted of the following elements:

Investment	**Cash Outflow**
Quality consultant fees	$30,000
QMS implementation costs	$50,000
Improvement teams	$20,000
Total Outflow	**$100,000**

NPV = PV – CI where: **PV** = present value & **CI** = cash outflow resulting from the cost of the investment.

The incremental cost of capital to the company (rate of return) is 10%.

PV = 500,000/ (1 +.10) + 750,000/ $(1 +.10)^2$ + 1,000,000/ $(1+ .10)^3$
PV = $454,545 + $619,835 + $751,314= $1,825,694

NPV = $1,825,694 - $100,000 = $1,725,694

Return on Investment = 1,725,694/100,000 = 1726%

Case II

Company B, a $100 million service firm, is seeking ISO 9001:2008 certification because it can mean an increase in revenue due to acquiring three additional customers. The three customers have mandated that all their suppliers be certified to ISO 9001:2008. The sales increase over the three-year life of certification is as follows:

Year	Net Cash Inflows
1	$2,000,000
2	$3,000,000
3	$5,000,000

Initial cash outflows as a result of the investment consisted of the following elements:

Investment	**Cash Outflow**
Quality consultant fees	$50,000
QMS implementation costs	$110,000
Customer acquisition costs	$200,000
Total Outflow	**$360,000**

The incremental cost of capital to the company (rate of return) is 8.0%.

PV =$2,000,000/(1 + .08) + $3,000,000/$(1 + .08)^2$ + $5,000,000/$(1 + .08)^3$
PV = $1,851,185 + $2,572,016 + $3,969,199 = $8,392,400

NPV = $8,392,400 – 360,000 = $8,032,400

Return on Investment = $8,032,400/360,000 = 2231%

These two cases demonstrate how ISO 9001:2008 implementation and continual improvement can create value and how to quantify that value with the NPV metric.