PRICING IN VOLATILE AND UNPREDICTABLE MARKETS

1.0 Background

Fuels wholesalers and retailers are facing uncertain times, unpredictable customer demand and volatile costs. For many, their pricing processes were developed during more stable times, with less focus on the need for flexibility, rapid response times and compliance checking. However the business world has changed and customer behavior has shifted significantly, demanding that fuels suppliers be more agile in responding to the changes in order to identify and grasp opportunities as they occur.

2.0 Six Elements of Effective Pricing

Based on many years of research and working with a variety of operators in different markets, KSS Fuels has found that among those companies with more effective pricing practices there are six (6) key elements that appear consistently and these are represented in figure 1 below.

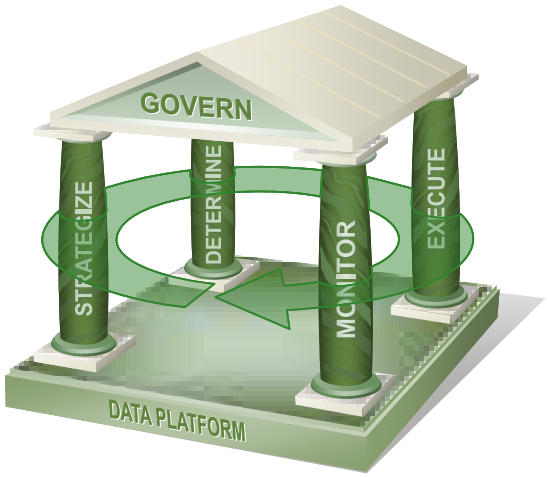


Figure 1 – key elements of effective pricing process

This model has been independently validated by such renowned analysts as AMR Research as a basis for benchmarking existing practices and identifying areas for improvement.

Let us explore each of these briefly, highlighting key capabilities as follows:

1. **Data Platform** – the primary role is to act as a single location for all relevant pricing data, providing validation, archive and a consistent data model for presentation and reporting purposes. This platform maintains efficient integration and interface mechanisms to the various sources of data, including ERP, internal legacy applications and external 3rd party data providers.

2. **Strategize** – this element contains a suite of tools and templates for developing and documenting corporate pricing strategy. It should also provide a means to quantitatively challenge strategy to identify adjustments as well as hold any number of different strategy options that can be quickly implemented depending on prevailing market conditions.

3. **Determine** – the means by which corporate strategy is translated into the daily tactics needed to generate prices. This often represents itself as a set of tactical pricing rules or protocols that can be applied to the key pricing triggers (product costs, competitor prices, customer demand changes etc). Critical capabilities in this area include the need to clearly represent strategy as a consistent set of pricing rules that can be executed quickly to generate new price proposals. More advanced operators include price optimization as another means to determine effective price recommendations.

4. **Execute** – this is the operational part of the pricing process, which begins with the way data is gathered, the automated processing of that data

through the pricing rules established in the Determine element, the approval of new price proposals and their transmission and implementation. Automation and a "by-exception" basis are key to fast response times. Pricing analysts also need an ability to manually override system-generated recommendations or to use a statistical model to conduct "what-if" analysis, quantifying the impact of price options on volume, margin and profitability.

5. **Monitor** – the ability to compare performance to defined corporate goals, or key performance indicators, and quickly alert personnel to performance issues and/or the need for change. Monitor is a key step in determining whether the current pricing strategy is effective in meeting corporate goals and, if not, what changes should be made to put the business back on-course to meet its' goals. Without an effective and continuous monitoring capability, businesses will lack the insight needed to become more agile to changing market conditions. This is where Business Intelligence tools are deployed to give stakeholders the information they need regarding the state of the business.

6. **Govern** – effective governance and compliance are not only good business practice but a legal requirement in most fuels markets. The ability to demonstrate compliance through detailed audit trails, specific pricing rules and a trace of how price decisions were derived are all part of the necessary infrastructure. Appropriate controls and approval levels should be mandatory, to contain the risk of non-compliant prices being put into the market.

As can be seen from figure 1, the application of these core pricing elements is a continuous/circular process, with adjustments being driven by the Monitor step.

3.0 Putting it Into Practice

Experience indicates the most pragmatic approach is to analyze the existing pricing process to determine gaps or potential weaknesses and then to prioritize to define the order in which to address them.

The analysis takes the form of a Discovery workshop with a report as the main deliverable. The model outlined above, together with facilitation tools, take a logical path through the business process, looking into all aspects of how pricing is conducted from the workflows to the underlying tools. The report will contain a series of recommendations on how to go about addressing the priority gaps or weaknesses.

The outcome of the Discovery workshop dictates the nature and extent of the effort and skills required to address the recommendations, together with a timeframe and key milestones that allow progress to be carefully monitored.

4.0 An Example from Wholesale Fuels

In the US wholesale fuels market, suppliers often express pricing strategy as a set of price targets that reference competitor prices, either against named competitors or combinations such as "the lowest two". The process of determining this price target is based on previous day competitor prices, which are highly visible in the US, combined with an estimate of how those prior-day competitor prices will change in response to published changes in underlying product costs (known as spot market prices).

In many existing supplier processes, pricing analysts use their intuition, market knowledge, analysis of past competitor behavior and an appraisal of current market conditions in order to take a view as to how much of the spot market change a given competitor will carry through into their price. As a result, their ability to hit price targets can vary considerably depending on how the competitor actually prices. The opportunity to improve price targeting has significant and immediate business value, in the form of increased margin, greater control and predictability of volumes and more consistent price positioning leading to enhanced customer loyalty.

The intuitive process above for attempting to meet a pre-defined price target resides in the "Determine" step of the model described in section 2. To improve the overall process requires application of 3 of the model steps as follows:–

1. **Determine** - to apply statistical model support for predicting competitor prices as the basis for calculating a new price;
2. **Execute** - to allow suppliers to re-calculate a new price as soon as newer information becomes available and/or to leave the price calculation until the last possible moment to take advantage of the most up-do-date (best) data before rapidly implementing; and
3. **Monitor** – to compare how well the price target was met and improve the calculation process within step 1 above for the next time around.

Step 2 requires that the price recalculation and implementation process can be accomplished in a matter of seconds, which is not normally the case in many suppliers.

As per the model described in section 2, to work effectively the above 3 steps need to be repeated on a daily basis.

The framework and specific capabilities for applying the 3 steps outlined above exists in the RackPrice wholesale fuels pricing system. The statistical model referenced in step 1 above is known as competitor price prediction which consistently and reliably improves the regular prediction of competitor prices, by product, channel and rack, through the statistical analysis of market factors and past pricing behavior.

The following real-world examples of the application of this framework, via the RackPrice system, represent the results from two (2) suppliers with differing levels of pricing process maturity.

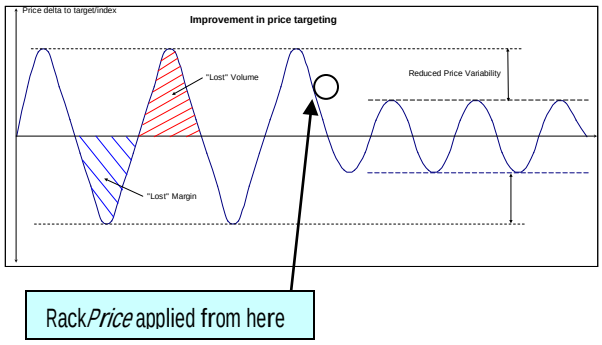
CASE STUDY 1 – SCALE OF IMPROVEMENT OVER MATURE PRICING PROCESS

Over a 30 day period when the average daily spot move was 1.5 cents per gallon, the result of applying the improvement process outlined above, via RackPrice, was as follows:

	After	Before	Improvement
% pricing days within +/- 0.5 cpg	74%	67%	10%
Average daily deviation from target	-0.03 cpg	-0.15 cpg	
St Dev of daily deviation from target	0.45 cpg	0.53 cpg	15%

The table indicates a 10% improvement in the number of days when the variation to the desired price target was 0.5cpg or less. (The 0.5cpg number was selected as it represented 1/3rd of the daily spot price change, an industry acceptable and meaningful measure of accuracy). The analysis goes on to show that, on average over the 30 days, the price target was met to within a reasonable accuracy (i.e. < 0.2cpg) both before and during the application of RackPrice. However the third row of the table is the most compelling, indicating the standard deviation of the variation from target. This is a critical measure of the variability around the price target and one which

sees price prediction in RackPrice make a significant improvement by narrowing the extent of the variation by 15%. Another way of visualizing this effect is shown in figure 2 below:



Analyzing the deviation from price target as a histogram (fig 5 below) indicates that, after price prediction is applied, the range of deviations from target becomes narrower, indicating reduced variability and there's a higher concentration around the desired price target, indicating a higher number of occasions where the target is met.

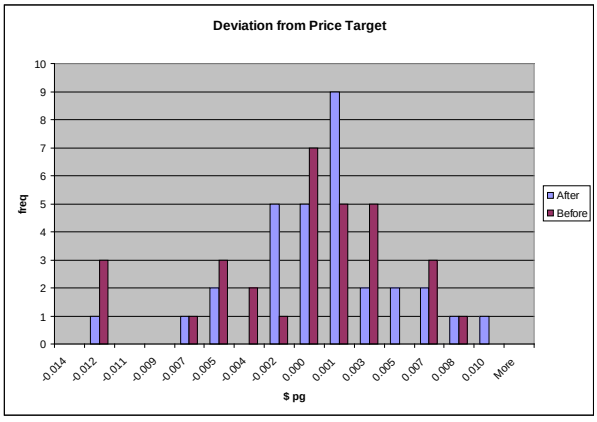


Fig 3 – Histogram of price target deviations

CASE STUDY 2 – SCALE OF IMPROVEMENT AGAINST LESS MATURE MANUAL PROCESS

Over a similar 30 day period when the average daily spot move was 1.5 cents per gallon, the result of applying the improvement process outlined above, via RackPrice, was as follows:

	After	Before	Improvement
% pricing days within +/- 0.5 cpg	80%	33%	142%
Average daily deviation from target	0.07 cpg	0.01 cpg	
St Dev of daily deviation from target	0.45 cpg	0.72 cpg	37%

The table indicates a very significant 142% improvement in the number of days when the variation to the desired price target was 0.5cpg or less. The analysis goes on to show that, on average over the 30 days, the price target was met to within a reasonable accuracy (i.e. < 0.2cpg) both before and during the application of RackPrice. However, as with case study 1 the third row of the table indicates an improvement of 37% in the standard deviation of the variation from target. This indicates that price prediction, as applied to price targeting, is providing more effective control over the variability of rack price around the desired target. The histogram in fig 4 below graphically illustrates the reduction in the spread of price target deviations and an improvement in the number of occasions where the price target is met:

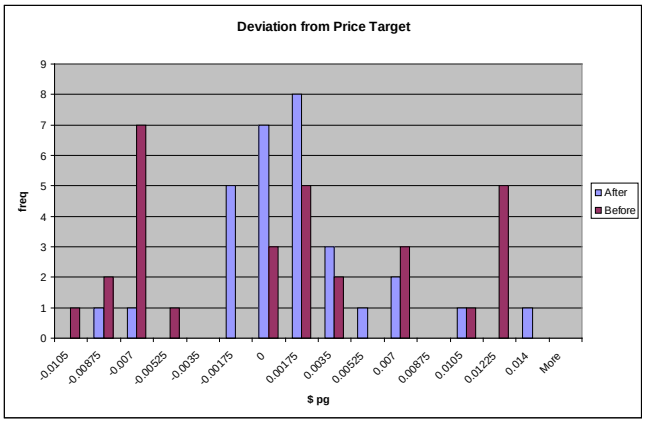


Fig 6 – Histogram of price target deviations

5.0 CONCLUSIONS

As can be seen from the two case studies, the application of the pricing process

improvement model described in section 2 can have a very significant impact on two fundamental aspects of pricing – Operational Efficiency and Financial Returns.

A number of better practice operators have already implemented the six (6) key elements to varying degrees and have evolved to a more agile and responsive pricing process. As with any pricing initiative, the financial benefits are quickly experienced and often justify any investment with rapid pay-back periods of months or, in some extreme cases, weeks.

With the current economic climate impacting customer behavior and continued volatility in product costs and selling prices, adapting your pricing process to cope is now a high priority for operators of all sizes.

6.0 RECOMMENDATIONS

The most effective short-term action is to conduct an objective and thorough review of the fuels pricing process with the goal of identifying potential gaps and risks, using the model described in this white paper as a guide. The review should consider all aspects of the end-to-end process, including data capture, decision-making processes, the roles and responsibilities of the people involved, to the subsequent implementation of new prices.

ABOUT KSS FUELS

KSS Fuels is the leading global provider of pricing software, analytics and consulting services to fuel retailers and wholesalers in the oil & gas, convenience store, grocery and retail industries. Providing "Knowledge beyond the numbers," KSS Fuels helps fuel marketers and distributors implement effective pricing solutions and increase profitability through the use of knowledge and numbers. The company's US headquarters are located in Florham Park, New Jersey, and its international headquarters are based in Manchester, United Kingdom. For more information about KSS Fuels, please visit www.kssfuels.com.