

CASE-IN-POINT: NEWBERRY TANKS' WINNING STORY OF LEVERAGING ERP FOR BUSINESS SUCCESS AND GROWTH

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It isn't often that we have the opportunity to talk with the business leader who first established the formal ERP system for their company. But such is not the case for Newberry Tanks, where we had the chance to speak with Newberry Tanks' President and Owner, Chris Long. In February of 2011 Long led a group of investors in the purchase of Newberry Tanks from the family who owned the company, following the passing of the founder. The company was well established and profitable at the time, but the family simply did not want to continue in the tank fabrication business. Although there were some things that needed attention, Chris Long felt that he had a diamond in the rough.

The Story Begins Immediately with New Direction

Newberry already had a core of extremely knowledgeable tank industry folks who were critical to running the business when Long acquired it. The accounting systems on the other hand needed immediate attention — they were paper-based, and batch entered into a DOS application. But this wasn't limited to accounting; the business operated primarily on spreadsheets and manual processes, many of which were entirely paper-based. On the operations side, there was a good deal of deferred maintenance, but Long was confident — despite the many challenges that these legacy processes presented — that Newberry's reputation for quality and its knowledgeable workforce provided the foundation for building a great company.

Long knew the first thing on the agenda was to immediately upgrade to an ERP based accounting system focused on AP / AR and General Ledger. After a selection process, he and his team decided to go with Sage 100. Long reported:

Newberry had a core of extremely knowledgeable tank industry folks when Chris Long arrived, that were critical to running the business.

“The solid financial and accounting solution available with Sage 100 as well as a knowledgeable and capable business partner (Blytheco Consulting) were the key factors here.”

The initial approach was to enter the AP and AR, and roll in the customers and suppliers on a day-to-day basis as orders came in and PO’s were issued. Within 3 months, they were almost entirely converted to the new ERP. Payroll was then added soon after to get all financial workflows on the Sage system.

Long indicated, *“With the support of our Sage business partner and consultant, our existing administrative staff was able to quickly adapt to the Sage 100 system.”* After installing and getting up to speed on their accounting and financial systems, their process control and efficiency improved. As shown in Figure 1, Aberdeen research indicates that choosing fundamental accounting systems as a starting point was the embarkation to Newberry's continued success. The majority of small and medium-sized businesses (SMBs) have general ledger, AP, AR, and payroll systems in place. The new owner's interest in investing for the future boded well for the organization.

Figure 1: SMB Financial Technology Adoption



n = 94, Source: Aberdeen, April 2019

Phase II: Improving Profitability with Additional Operating Solutions

The second phase in Long's plan to transform Newberry was to add the sales order, inventory, and bills of material (BOM) modules — which were also part of the Sage 100 solution — to formalize the sales order

Leaders vs. Followers Performance

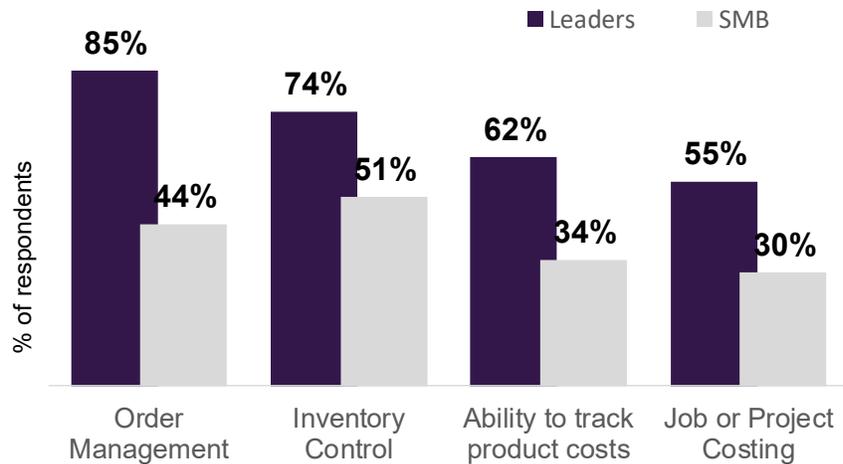
- ▶ **Complete and on-time delivery:**
 - Leaders: 96%
 - Followers: 88%
- ▶ **Internal schedule compliance:**
 - Leaders: 95%
 - Followers: 88%
- ▶ **Improvement in profitability over the past two years:**
 - Leaders: 7%
 - Followers: -2%
- ▶ **Improvement in productivity over the past two years:**
 - Leaders: 13%
 - Followers: 1%

Adding the sales order management and perpetual inventory began to establish standard products and accurate costing for more stability and control to prepare the company for growth.

process and compliment the AR function. Adding the inventory management functionality established a formal perpetual inventory process with transaction controls; eliminating a lot of inefficient manual processes.

Adding the sales order management and perpetual inventory established standard products and accurate costing for more stability and control in preparation for the company's growth. These investments propelled Newberry beyond the levels of the average SMB. As Figure 2 indicates, Leaders are much more likely to adopt systems like inventory control (74%), order management (85%), product cost tracking (62%) and job / product costing (55%).

Figure 2: System Solution Adoption for Operational Improvements



n = 94, Source: Aberdeen, May

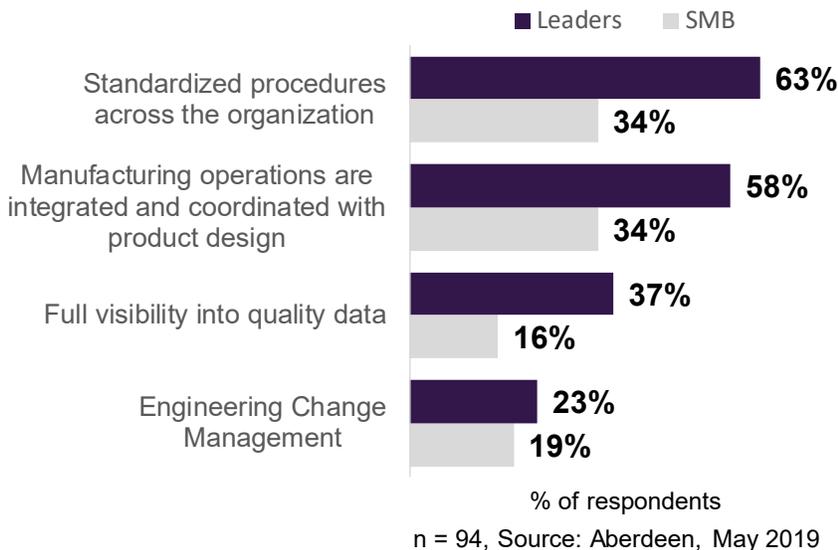
The SMB segment as a whole is much less likely to adopt these systems. Inventory control adoption is at 51%, order management at 44%, and the ability to track product costs and use them effectively in bids and quotations are even less widely adopted, at the 34% and 30% levels, respectively. Investing in these solutions elevated Newberry to a higher level of sophistication in the SMB marketplace with the ability to understand their costs.

Linking Product Engineering and Production for Even Better Results

The company had a long-standing reputation for their strong labor force, an excellent brand name, and notable workmanship. To enhance this

reputation, they added a formal engineering process that further improved their quality and execution on the shop floor by documenting and standardizing their processes. This was accomplished with Inventory and BOM modules to further build on the strong workforce and product workmanship, improving efficiency and the business as a whole. As shown in Figure 2, Leaders are much more likely to integrate manufacturing operations with product design.

Figure 3: Integrating Product Engineering and Manufacturing



63%
of Leaders have invested in standardizing their procedures across their organization

After the initial accounting systems to gain formal control and establish the back-office systems were in place, the addition of the formal engineering process pushed them to understand costs automation and consistency in their operations and product manufacturing more accurately. Improving the accuracy in their costing had a significant impact on Newberry’s profit margins.

Prior to having a strong understanding of their costs, they found themselves winning business at prices that were very low margin and sometimes unprofitable. The reverse was also true — they were sometimes in a good position to win the business, but overpriced their bid because they did not have confidence in their costs. Standardizing their products and integrating product engineering processes with manufacturing paid even greater dividends by further reducing product costs. As visibility into costs improved and actual costs were reduced through engineering and manufacturing efficiency, they were able to win business at margins that grew their profitability. Long summarized it well:

“With the inventory & sales order module implementation, we were able to push out quoting and sales order entry to the sales staff and were able to implement a gross margin-based sales commission. With bills of material management on standardized tank configurations, we were able to understand our costs and were better able to establish product prices that supported success of the business.”

Initial Systems Deployment Decision

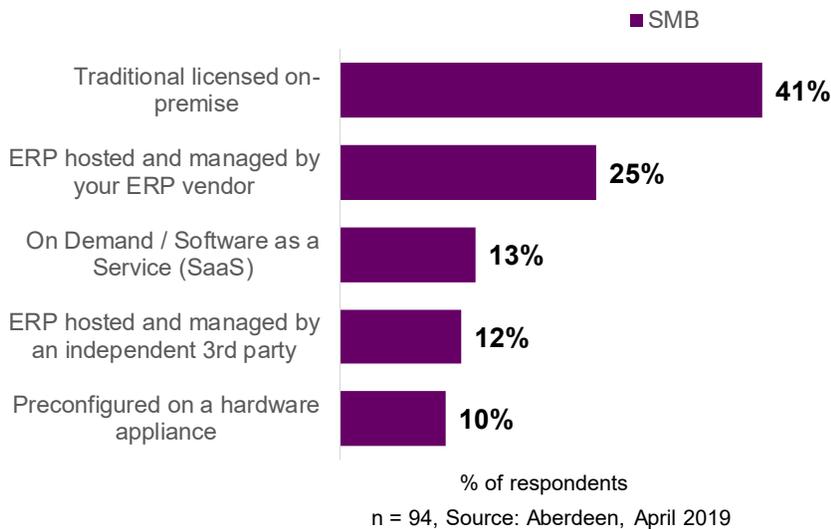
Long initially outsourced the hosting of their Sage 100 system to a third-party hosting service he used in a role prior to Newberry.

There is a compelling story behind the decision to outsource worth hearing because of the rationale behind it. In a prior business, Long went through the unfortunate experience of the 2004 Hurricane Ivan flood, which threatened the survival of his company at the time — leaving him weary of having an in-house IT function given the size of Newberry Tank. The company’s IT function and servers at his previous organization were on site, and at the height of the flood, water came within an inch of reaching the servers. Fortunately, someone had the foresight to put the servers on top of tables, which avoided the disaster. The near miss of that experience made an indelible impression on Long.

Most executives never go through the real-life example of why a hosting provider might be a sound business decision, but as Long indicated in our discussion, there was no doubt in his mind about immediately outsourcing the hosting from the very beginning, after dealing with the reality of a near disaster.

Figure 3: ERP Deployment for Small Medium Businesses

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As Figure 3 indicates, the majority of SMBs are more likely to have an on-premise license. But given that cloud solutions are the wave of the future, outsourcing to a third-party, the ERP provider, or SaaS deployment are growing as a more scalable option for the future. In the case of Newberry, with limited IT staff and the prior experience of their new president, outsourcing to a third-party was the obvious choice.

Phase III: Fixing Spare Parts: System Limitations Required Changes

Up to this point in the Newberry evolution, the added systems were within the scope of the Sage 100 solution they had purchased. The pace of the rollout was based on establishing controls and disciplines over core processes as they were able to absorb them. Hosting the primary application worked well over the first 3-4 years after Long took over, but as Newberry continued to grow, there were additional areas that needed improvement. These additional improvements required robust integration efforts of applications that were part of the Sage partner network.

The next opportunity that Newberry focused their attention on was putting their spare parts business online. The spare parts and accessory business for Newberry is a significant piece of their revenue representing about 10% of the dollar volume, but a much larger percentage of the transaction volume. Newberry chose an eCommerce platform provider (Website Pipeline), that they discovered and met with at one of the Sage conferences in 2015 to execute this. Integration with Sage 100 was a key deciding factor here. As for the process; orders are

entered through the eCommerce portal, and then pushed into Sage 100 for fulfilment and shipping. Shipping notices are automatically sent out through the portal's integration, providing timely notice to customers.

Newberry's previous process involved looking up parts in a catalog and placing the order manually — no automation involved. The sales team historically spent a lot of time managing and entering repetitive spare parts orders, a manually intensive and time-consuming process. The new goal? Avoid timely and costly with business process automation of repetitive spare parts ordering via the eCommerce portal.

The new spare parts solution that Newberry found was a portal-based eCommerce catalog type solution that eliminated the internal manual order entry, and enabled customers to enter their own orders at any time, which dramatically streamlined the spare parts and production ordering. The new spare parts system took a lot of work off the sales team by eliminating much of the manual catalog lookup and entry. Furthermore, for some key customers, Newberry was able to automate the order entry for the inside sales team on repetitive tank and tank accessory orders. This capability enabled the Newberry team to establish stocking agreements and improve their service by keeping stock ahead, based on forecasts and fulfill these orders immediately. With these processes in place, they're now able to ship significantly more orders out on the same day.

The system challenge for Newberry was that the current hosting provider did not have the in-house resources to handle this level of integration, which led Long and his team to explore other options. They wanted a hosting provider that could provide not only the hosting for a cloud solution, but also had the resources to manage the integration of the eCommerce portal with the existing Sage 100 system.

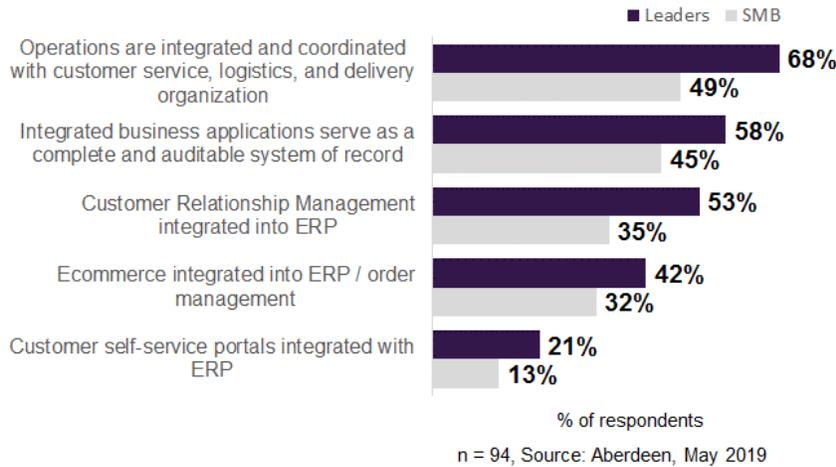
After evaluating several options, the Newberry team went with Microsoft Azure as the Cloud platform to run the Sage 100 product. The decision was far reaching in scope, because it opened the door to leveraging the advantages of a cloud-based solution to connect with all partners in the Sage partner community for any needed functionality in a seamless manner. From a strategic viewpoint, it marked the third major system decision that offered enhanced integration capabilities.

Figure 4 shows the integration capabilities of the Leaders compared to the SMB community as a whole. The Leaders have clearly taken on the challenge posed by integrating their ERP with best-of-breed partner solutions as well as any legacy systems that provide value (i.e.,

Newberry was able to automate the order entry for the inside sales team on repetitive tank, and tank accessory orders. Because of this capability, the Newberry team was able to establish stocking agreements and improve their service by keep stock ahead based on forecasts and fulfill these orders immediately. They currently ship many orders out on the same day.

manufacturing, logistics and delivery functions). The value lies in having an integrated system of record with one version of truth.

Figure 4: ERP Enterprise Integration



Because of the eCommerce portals integration with Sage, the sales order entry streamlining was a major boon to the business in terms of gaining control of the order entry, management and customer relationships. However, for the existing field sales team, there was some angst over losing pieces of their job function on their spare parts involvement. The focus for sales shifted away from order taking activities, to concentrating on selling and growing the business. This change led to implementing the Sage CRM solution in late 2017, which turned into a tremendous productivity improvement by creating a structure and discipline toward account management to focus on new business.

Newberry continued its growth, but there was still work left to do from Long’s perspective. One of the immediate software solution updates was adding the Sage Inventory Advisor in fall of 2018, to better assist them in right sizing their inventories. They also addressed sales tax automation, using the Sage partnership to implement Avalara in mid-2018. In both cases these solutions addressed the next areas needed for improvement, which they were able to quickly implement, leveraging their cloud-based ERP solution. Newberry also adopted the Sage Business Intelligence solution for reporting in mid-2018, providing the major benefit of seeing financial results in real-time. President Long indicated *“We can see financial periods develop against plan instead of waiting for the monthly close for results.”* Going forward, Newberry has

Newberry's profit growth is more than double the competition, which certainly puts them at the top of any list.

further software investment plans for solutions that will support the factory of the future.

Newberry Results Following Their ERP Journey

Table 1 highlights some key Newberry performance metrics compared to the industry average statistics most relevant to their business. Realizing that they are a private company, their performance is indicated in percentages compared industry average numbers. The "Newberry % Better vs. Industry Avg" represent the percentage better that Newberry is compared to Industry Avg. Newberry's net profit margin is 52%, which is significantly better than the industry average, and can be traced to the effort invested in tracking and controlling their costs. Newberry's profit growth is more than double the competition, which certainly puts them at the top of any list for performance.

Table 1: Newberry Tank Performance Comparisons

Performance Metric	Industry Avg	Newberry % Better vs. Industry Avg
Net Profit Margin	5.42%	52%
Profit Growth	25.9%	106%
Accounts Receivable Days	54.98	36%
Accounts Payable Days	34.74	64%
Direct Materials %	44.9%	14.96%
Direct Labor %	11.0%	3.63%
Manufacturing Overhead %	14.2%	7.74%

The AP and AR show the % less (improvement) that Newberry is for their *order-to-cash cycle* (AR) and their *procure-to-pay cycle* (AP). And they are significant; receivables are 36% less than industry competition and payables are less by 64% fewer days. Both measures are indicative of a healthy cash flow. Paying on time or better indicates that companies have their financial processes under control, so they take the discounts that are offered routinely for early payment. When suppliers are paid on time or ahead, this sets up a favorable discussion when negotiations occur. Getting paid faster by customers directly improves cash flow by shortening the time to payment. Integration and automation in their ERP processes enable these superior process advantages.

The product costs are also lower in every area, which comes from the steps taken by Newberry actively working on lowering their process and material costs by integrating product engineering with manufacturing and operations. It became clear as their story unfolded and they

addressed the thorny problems involved with streamlining their spare parts and sales processes, Newberry was not content to maintain. They were driven to operational excellence wherever the opportunity presented itself. That's why their overhead is lower by 7.74%.

In discussing customer service, Long explained that Newberry's policy was to satisfy the customer's need regardless of the request — as opposed to establishing a lead time and measuring their performance against their published lead time, which is commonly used and establishes a uniform measurement. Although Newberry does not have this in place, they are living to a higher standard, which is to meet the demand if possible, regardless of whether the request is reasonable. Comparing their performance results against the levels shown in the Aberdeen research, Long indicated that based on the metrics they do track, and their customer service performance policy of leaving no stone unturned, Newberry was competitive with the Leaders. Based on all the changes and improvements they have made, there is no doubt that their profitability, growth, and service are a winning combination.

Summary and Key Takeaways

The evolution of Newberry under the direction President Chris Long has been a well thought out strategy to support the manufacturing operation with accurate financials and efficient administration through business process streamlining, control, and automation. Newberry was able to improve their operations with formal system solutions while they were absorbing the changes. At every step along the way, when adding a software solution, the emphasis was to gain control of their business process, standardize it, and then streamline and automate where possible. Remembering that they were using spreadsheets and some DOS based applications when Long took over control, Newberry started with financials, then moved to engineering and production, followed by order and spare parts management, and finally sales, with CRM.

From early 2011 to the present, Newberry has transformed with major milestones being achieved every year. The business has flourished and is poised for the future based on their ability to serve their customer with a quality product backed up by their parts and services offerings. The next challenges on the horizon are stronger and faster analytics, while moving toward the “factory of the future,” and possibly the next step in the CRM evolution. Whatever the challenge, Newberry is up to the task and shows no signs of resting on their laurels. Congratulations to

Newberry and President Chris Long for a great vision, a great strategy, and outstanding execution.

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