ROI CASE STUDY

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GAINSYSTEMS QUBICAAMF

ANALYSTS:

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THE BOTTOM LINE

QubicaAMF Worldwide deployed software from GAINSystems to optimize its inventory holdings to support and grow its business. Nucleus found that the inventory optimization application from GAINS enabled the company to reduce inventory holdings by 20 percent. Not only did GAINS lower QubicaAMF's bottomline, it grew revenue by positioning the company for higher fill rates that led to increased after-market sales for bowling equipment.

ROI: **159%**

Payback: **7.2 months**

Average annual benefit: **$811,269**

THE COMPANY

QubicaAMF Worldwide manufactures and sells bowling products and parts worldwide. The company was formed in 2005 when the U.S. company AMF Bowling Products merged with the Italian company Qubica Worldwide. Today the combined entity offers such products as scoring and center management systems, pins and pinspotters, lane machines and furniture, bowling balls and shoes, as well as related parts and accessories. The company has sales offices in 15 countries and has distributors across the globe. It has sold, serviced and installed more than 10,000 bowling centers in 90 countries. The company has its global headquarters in Richmond, Va. and its European headquarters in Bologna, Italy

Cost : Benefit Ratio | **1 : 4.9**

THE CHALLENGE

In 2000 QubicaAMF began running its business on a JD Edwards ERP system. Although the ERP system was used for inventory management and forecasting, it was cumbersome and lacked adequate functionality. Initially, QubicaAMF thought the solution for better inventory control would be purchasing software for improved forecasting, as it was not getting what it needed from JD Edwards and it had to supplement the system with spreadsheets. Further investigation of supply chain software available in the market led the company to realize that an application for inventory optimization was more suited to its business needs.

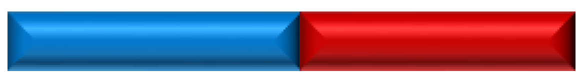
THE STRATEGY

QubicaAMF began its due diligence in 2008 and reviewed a number of solutions including those from GAINSystems, Logility, and SmartOps (now part of SAP). The company ultimately selected GAINSystems for a number of reasons including:

- QubicaAMF found that GAINS had the functionality to support inventory optimization as well as production scheduling and forecasting.
- GAINSystems offered more reasonable pricing than competitors and would allow QubicaAMF to deploy the software on its computer servers without the need for additional hardware.
- GAINSystems was more willing to provide customer support to a mid-sized company like QubicaAMF.
- GAINSystems did an Inventory Investment, Profit, and Service Evaluation study, and the examination of QubicaAMF data provided evidence that the application could meet its goal of reduced inventory holdings while improving service levels.

Types of Benefits

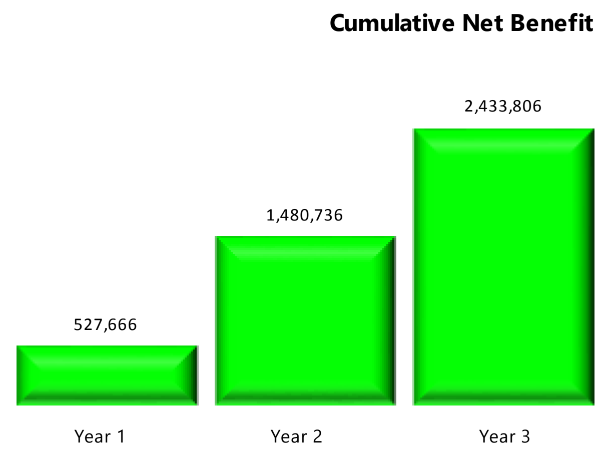
Direct 52%



48% Indirect

QubicaAMF began its implementation of GAINS in February 2009 and completed that installation by May of that year. The solution provided for:

- Establishing a multi-echelon deployment of stock by service level at its four in-plant warehouses and at a distribution center in Europe
- Setting safety stock and replenishment order sizes at the stock-keeping unit at location (SKUL)
- Providing Master Production Schedules that sequence SKU work order requirements on the basis of change-over costs, inventory carrying costs, and on-time delivery goals
- Setting inventory polices based on profit optimization.



KEY BENEFIT AREAS

Deploying GAINS has enabled QubicaAMF to trim inventory holdings while creating a production plan for manufacturing. Key benefits of the project include:

- Decreased inventory required on hand to serve orders
- Reduced freight expenditures for resupply
- Reduced purchase orders through more efficient calculations for stock requirements
- Increased labor efficiency at the plant by improved production scheduling

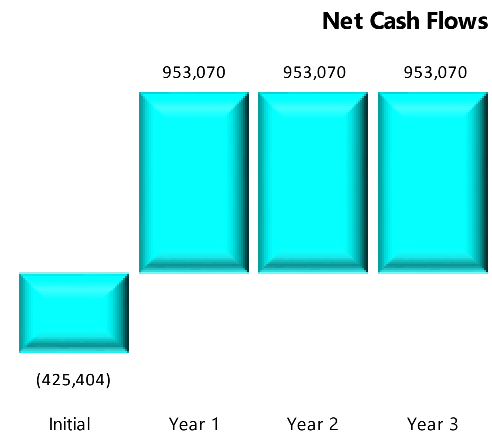
KEY COST AREAS

Costs of the project include software license and annual maintenance fees, personnel time to implement and support the application, training, and professional services costs for implementation.

BEST PRACTICES

QubicaAMF was able to take advantage of the inventory optimization to improve parts availability and keep in stock the needed parts sought by distributors and customers. As a result of consistently higher fill rate on orders, the bowling equipment manufacturer was able to win more after-market parts business.

Inventory optimization also allowed the bowling manufacturer to free up warehousing space at its four in-plant warehouses in Richmond, Va. and at its global distribution center in the Netherlands.



Because GAINSystems tool made inventory replenishment more effective, QubicaAMF was able to cut down on its number of purchase orders to suppliers. In fact, the software was able to advise the bowling manufacturer that it was sometimes buying low-cost items too frequently.

Once GAINS allowed the bowling manufacturer to have a better understanding on its inventory requirements, the tool was able to assist with production scheduling. Coordination of manufacturing meant QubicaAMF was better able to schedule workforce needs at the plant, resulting in labor efficiency and less use of overtime. Improved manufacturing scheduling also reduced the need for last-minute inbound and outbound shipping, resulting in a reduction in transportation.

CALCULATING THE ROI

Nucleus estimated the initial and ongoing costs of software license subscription fees, personnel time to implement and support the application, employee training time, and consulting over a 3-year period to calculate QubicaAMF's total investment in GAINS.

Direct benefits quantified included a 20 percent inventory reduction, although it should be noted that the reduction occurred during a downturn. Other benefits counted were redeployed staff, fuel and freight savings and reallocated warehouse space. Indirect benefits quantified included increased labor efficiency.

FINANCIAL ANALYSIS

GAINSystems

Annual ROI: 159%
Payback period: 0.6 years

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	525,000	525,000	525,000
Indirect	0	494,208	494,208	494,208
Total per period	0	1,019,208	1,019,208	1,019,208

CAPITALIZED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	241,490	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	241,490	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	48,298	48,298	48,298
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	48,298	48,298	48,298

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	0	38,638	38,638	38,638
Hardware	0	0	0	0
Consulting	120,420	0	0	0
Personnel	55,417	27,500	27,500	27,500
Training	8,077	0	0	0
Other	0	0	0	0
Total per period	183,914	66,138	66,138	66,138

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
Net cash flow before taxes	(425,404)	953,070	953,070	953,070
Net cash flow after taxes	(342,642)	545,923	545,923	545,923
Annual ROI - direct and indirect benefits				**159%**
Annual ROI - direct benefits only				80%
Net Present Value (NPV)				1,090,031
Payback period				**0.6 years**
Average Annual Cost of Ownership				207,939
3-Year IRR				149%

FINANCIAL ASSUMPTIONS	
All government taxes	45%
Cost of capital	7.0%

NUCLEUS RESEARCH

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the solution.

By the Numbers

QubicaAMF Worldwide IO Deployment

Annual Return on Investment **159%**

0.6 years The total time to value, or **payback** period, for the project

Cost : Benefit Ratio **1: 4.9**

811,269

Average annual benefit

THE PROJECT

Bowling products manufacturer and seller QubicaAMF Worldwide deployed GAINS to optimize inventory and improve fill rates. Nucleus found that this enabled the company to reduce inventory along with freight expenditures and purchase orders and boost labor efficiency at its plants.

THE RESULTS

Reduced inventory by 20 percent
Increased plant labor efficiency by 11 percent
Saved $75,000 on freight expenses

Number of **users: 15**

3.5 Months Total Time for the company to deploy GAINS

"Along with reducing inventory our fill rates went from 80 percent to the upper 90s."

- Senior Vice President, Operations