

The Rise of Multifaceted Businesses

**How Manufacturers and Distributors Are
Diversifying Their Business Models to Gain a
Competitive Advantage**



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Businesses Are Becoming Multifaceted

Manufacturers and wholesale distributors are going through a significant transition from primarily or exclusively selling physical products, to more diverse business models in which they also provide a variety of services. This includes offerings such as financial services (transaction processing, project financing, etc.), consulting and professional services, inventory management, procurement management, product-as-service with uptime guarantees, and an increasing array of creative, unique, often industry-specific value-add services.

Henry Schein—Driving Growth by Offering Much More Than Just Equipment and Supplies

For example, [Henry Schein](#), founded in 1932, is a distributor of dental, medical, and animal health equipment and supplies. Their primary focus is dental practices. In addition to selling dental equipment and supplies, they created and sell a comprehensive suite of dental practice-management software; provide electronic claims processing services; dental practice analysis and consulting; financial services such as leasing, patient financing and collections, project and acquisition financing, credit card processing, and tax assistance; staffing and hiring solutions; outsourced creation of custom restorations (bridges, crowns, etc.); an inventory-management program; dental lab software; disaster management resources to get dental/medical practices up and running quickly after a natural disaster; formal continuing education programs; brokerage services for buying, selling, and valuing dental practices; and more.

Over the years, Henry Schein has become a one-stop-shop for virtually everything a dental practice needs. As a result, they grew from \$225M in 1989 to over \$13B today, becoming the world's largest distributor of dental equipment and supplies. At the same time, they grew operating margins to above 7%, more than twice the average for wholesale distributors.¹

The Outcome Economy: An Evolving Spectrum of Business Models

We are evolving towards the 'Outcome Economy,' where customers pay for the specific outcomes they are trying to achieve, rather than buying a specific 'thing' or product. Historically, manufacturers have traditionally focused on making and selling their products while distributors have focused on buying and selling those products. Of course, those roles don't go away, but over time, there has been a steady expansion of the types of services manufacturers and distributors offer, the variety of financing options and business models used, and an evolving relationship with the customer.

Example of Selling Outcomes: Semiconductor Yield Management

In order to produce computer chips, semiconductor manufacturers must first buy some 'things'—in this case big expensive manufacturing machines for wafer fabrication, assembly, and testing. However, the outcome they want is not owning a bunch of machines, but rather to make a lot of chips *profitably*. One of the biggest determinants of profitability is the rate of improvement in production yield (percent of chips that pass all tests and thereby can be sold) during launch of a new line of chips. Annual yield losses can exceed \$100M for a large manufacturer.

A manufacturer can literally buy better yields, via a gainsharing-based yield management service. The service provider helps the manufacturer through the mindbogglingly complex process of launching a new line of chip production and gets paid based on improving the yield at a rate faster than would normally be expected. They are paid for achieving a *specific outcome* rather than for simply providing a machine.

¹ Even compared to other dental and animal health distributors, a category with higher than average profits for distributors, Henry Schein's operating margin is about 50% higher than competing firms in that category.

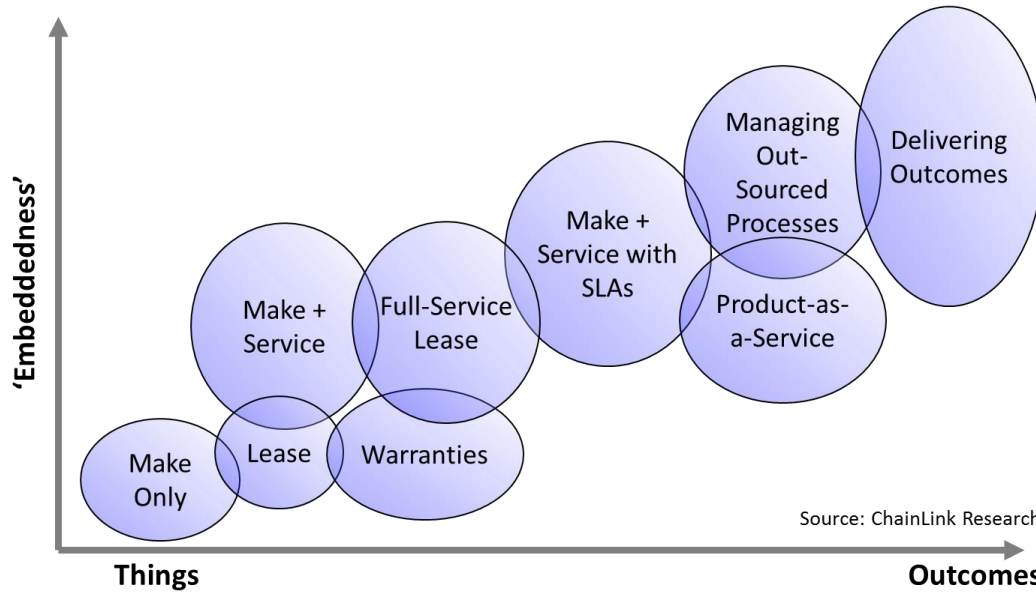


Figure 1 – The Outcome Economy—Evolving from Selling Things to Selling Outcomes

As manufacturers and distributors offer these richer outcome-based services, they take on more risk and responsibility for the success of their customers in exchange for bigger rewards. They also tend to become more embedded into their customers' businesses and daily lives, leading to increased loyalty and stickiness. For example, managing an outsourced process for their customers demands that the manufacturer or distributor becomes much more integrated into their customer's operations, systems, and processes. Some manufacturers offer product-as-a-service such as aircraft engine manufacturers selling [power-by-the hour](#) (instead of selling engines); Philips customers pay-per-lux with [light-as-a-service](#) (instead of buying light bulbs); and Schaeffler Industrial Services' bearings-as-a-service for large complex machines like wind turbines or cruise ships with a multi-year, pay-per-rotation contract (instead of buying the bearing).

Imperatives Driving Business Model Evolution

Companies are facing several imperatives in the marketplace, driving this shift to expanded business models:

- **Competitive Differentiation**—Unique, higher-value services are vital to differentiate offerings. This has become critical for survival with appearance of new entrants such as Amazon.
- **Margin and Revenue Challenges**—Over time, products and services become commoditized and mature markets become saturated, putting tremendous downward pressure on margins. Unique, differentiated services can boost profits significantly. They also create new sources of revenue, which may ultimately become the primary revenue for the business. For many manufacturers and distributors, the majority of profit (in some cases virtually all of their profit) comes from services. Focusing on and improving these services will ultimately drive additional margin and revenue.
- **Revenue Predictability**—Subscription-based and/or as-a-service revenue models provide more repeatable and predictable income streams.
- **Loyalty/Embeddedness**—Many higher value services demand deeper integration into B2B customers' systems, processes, and organizations. For B2C customers, these services can become repetitive and ultimately essential. In both cases this fosters longer-term customer relationships, with less churn.

Nutreco's Unique Services Create High-barrier Competitive Differentiation

[Nutreco](#) is a provider of livestock and fish feed (via their Trouw Nutrition and Skretting brands). About a decade ago, they started efforts to provide more strategic 'precision farming' systems and services to their farmer customers. This includes sophisticated sensors and big data analytics. For example, for shrimp aquafarmers, they provide a system using audio sensors that detect the optimum feeding time, to maximize growth while minimizing wasted feed. They have a rapid analysis reader providing instant, reliable detection of mycotoxin contamination² in feed so farmers and feed mills can take immediate action, reducing negative impacts on livestock health. They sell modular precision-feeding systems that use nutritional data science to fine-tune feeding strategies, adjusting nutritional composition based on time-of-day, animal lifecycle, and individual animal differences. To keep the stream of new ideas flowing, Nutreco organizes hackathons and has their own venture arm (NuFrontiers) that invests in promising startups. By implementing these new value-add services, Nutreco has gone from being just another feed provider to becoming a strategic partner, essential to optimizing their customer's farming operations.



New Technologies + New Business Models = New Opportunities

Technology advancements and business model evolution are reshaping industries and competitive landscapes, generating new threats and opportunities for businesses to diversify and differentiate.

IoT/Big Data

When a product, machine, or system is outfitted with sensors, connectivity, and intelligence, it enables remote monitoring and predictive maintenance which can significantly lower the cost of service, while simultaneously dramatically improving uptime. This is foundational for *profitably* providing service level agreements (SLAs), longer warranties, full-service leases profitably, and ultimately product-as-a-service. Perhaps even more powerful, the insights and data generated by IoT can provide the intelligence to offer many new types of value-add services. These can drive high-value improvements for the customers of manufacturers and distributors. For example, their customers who buy equipment that leverages IoT and Big Data, could also realize lower energy consumption (decreased cost and carbon footprint) and improved safety/fewer accidents using IoT-enabled services from the manufacturer or distributor. Other IoT-enabled services might provide the equipment user with insights into their own work patterns and how they are using the equipment, the ability to improve their own forecasts and lower inventory levels, and ultimately improve *their* customer's satisfaction by improving the reliability of their operations.

² According to the FAO (UN's Food and Agriculture Organization), a quarter of the world's food crops are contaminated with mycotoxins.

Fleet Advantage—Using IoT with Trucks to Offer Higher Value Services and Outcomes

[Fleet Advantage](#) leases trucks for vehicle fleets. They combine the data generated by the trucks' onboard computers with maintenance and route data from their customers to track fuel economy, hours of service, driver behaviors, and much more. They can detect when an engine wasn't tuned up properly or a driver is staying too long in the lower gears, thereby using more fuel than necessary. They can also detect unsafe driving habits so that specific drivers can receive training, thus reducing accidents. Consequently, beyond just providing the vehicles, they offer value-add services that reduce fuel consumption (the largest operating cost for fleets), lower maintenance costs, mitigate truck breakdowns, and decrease the number of accidents. Fleet Advantage's value-add services have boosted their revenue and enabled them to realize higher margins than their competition. For more on this example, see [Using IoT to Transform a Service Business](#).



Artificial Intelligence/Machine Learning

Over the past decade, there have been tremendous [advances in artificial intelligence and machine learning](#) (AI/ML). These are now being used in the majority of enterprise applications. This growth is being driven by three main factors: 1) the enormous growth of on-demand computing power, 2) new developments in AI/ML algorithms, and 3) massive new quantities of detailed data. The internet creates a rapidly growing aggregation of extremely diverse data. Digitization of company's processes provides company-specific data. IoT is creating massive amounts of fine-grained data about the physical world.

Predictive Maintenance

Most uses of AI/ML by manufacturers and distributors are initially focused on internal use cases, such as to automate and improve their operations, improve forecasts, better understand their competition, and so forth. Beyond the internal opportunities, AI/ML provide opportunities for manufacturers and distributors to dramatically expand the palette of services they offer. For example, manufacturers of mission critical equipment are using machine learning to sense and predict equipment failures well before they actually happen, enabling the problem to be fixed at leisure during planned downtime. The customer/equipment user can plan ahead and build extra inventory or otherwise frontload activities needing that equipment before the planned shutdown. In contrast, the unplanned failure of the equipment requires the manufacturer or distributor (whoever is providing the support) to fly in emergency technicians and parts at great expense. Meanwhile, their customer's operation is losing money and productivity, and their customer is losing patience, every hour that equipment remains down. With AI/ML-driven predictive maintenance capabilities, the equipment manufacturer can guarantee extremely high uptimes, which is valuable for any mission-critical equipment user. Customers are willing to pay a premium for that kind of reliability and predictability of their operations.

Intelligence-based Services/Optimization

Distributors and manufacturers can also use AI/ML to understand their customer’s usage patterns, to help the customer optimize their business. A truck manufacturer might use AI/ML to help the fleet owner improve fuel economy and safety, optimize maintenance, and optimize their load planning. A distributor could also use AI/ML to provide market intelligence services to their customers. Since the distributor has a much broader view of the market than their customers, they can use AI/ML—combining the data they have internally about product purchases, with external data such as major events, fluctuations in underlying commodity markets and indexes, and other casual data—to sense and anticipate market shifts, shortages, impending price shifts, etc. and alert their customers about risk and opportunities, as well as recommended actions. The possibilities for use of AI/ML to create new value and services is virtually endless.

Ecube Labs—Using Machine Learning to Reduce Trash Collection Costs

[Ecube](#) makes trash cans for use in public spaces. These are solar powered, wirelessly-connected smart trash cans with a built-in trash compactor and fill-level sensors. On top of all that, they’ve implemented machine learning to understand usage patterns, to more accurately predict when the trash should be picked up and optimize pickup routes. The end result is a significant (up to 80%) reduction in the number of trips and miles driven by trash collection trucks, cleaner public spaces without overflowing trash bins, and elimination of insect and vermin problems. Ecube’s customers are buying a lot more than just a trash can (the ‘thing’). They are buying valuable desired outcomes—reduced cost and carbon footprint of their trash collection operations, less traffic on their city streets (fewer trucks), and more attractive public spaces for citizens.



Network Orchestrator Business Model

Network Orchestration is a relatively new business model, based on leveraging the internet and other technology to connect a network of sellers (or resource providers) to buyers (or resource consumers). Well known examples include Uber, Airbnb, Amazon, Facebook, and Alibaba. Many orchestrators provide a form of brokerage, with highly automated buyer-seller matching enabled by technology. The orchestrator is typically ‘asset light’; i.e. they don’t have to buy the cars needed to provide a ride service, or buy the houses needed to provide a bed and breakfast service, or buy the consumer products needed to provide an enormous online marketplace with ‘endless virtual aisles’ of merchandise. According to a research study³ published by the Wharton School, Network Orchestrators had 50% higher ROA, 2½ times the profit margin, four times the stock valuation (price to revenue ratio), and grew over 10X as fast in their first year when compared with asset-intensive companies such as manufacturers and distributors.

³ Lind, Beck, Wind (2016), [The Network Imperative](#), Harvard Business Review Press. [Summary article](#) retrieved March 6, 2019

	Asset Builders	Service Providers	Technology Creators	Network Orchestrators
<i>Description</i>	Make, market, distribute, and sell physical goods	Hire employees who provide services to customers	Develop and sell intellectual property such as software, analytics, and technology	Create a network in which participants interact and share in the value creation
<i>Example Companies</i>	Walmart, Ford, FedEx	Aetna, JP Morgan, Accenture	Microsoft, Oracle, Amgen	TripAdvisor, Red Hat, Uber
<i>2015 Multiplier</i>	1.5	2.5	4.7	5.8
<i>2015 Profit Margin</i>	27.9%	47.1%	61.6%	69.5%
<i>2015 Return on Assets</i>	1.6%	2.0%	-0.9%	2.4%
<i>2015 1 Year Sales Growth</i>	1.3%	9.0%	13.2%	17.0%

Source: Wharton School, [Networks and Platform Based Business Models Win in the Digital Age](#)

Table 1 – Comparison of Network Orchestrators with Asset Builders and Other Traditional Companies

These are extraordinary differences in financial performance between asset-building companies and network orchestrators. However, it requires significant changes to culture, systems, processes, and human capital for an asset-building company to develop a network orchestration capability. Nevertheless, in some cases the stakes (e.g. survival of a company or industry) and potential rewards (e.g. dominance of an industry) are so high, that some manufacturers and distributors are jumping into the fray. For example, some predict that the adoption of self-driving cars by ride-hailing companies (e.g. Uber and Lyft) will lead to a sharp decline in car ownership. That is causing automobile manufacturers to reconsider their current business model and look at a different model where a major portion of their revenue comes from ride-hailing and delivery services. They will still be manufacturing cars but in addition are investing in developing new network orchestration business models.

Automobile Manufacturers Launching Carsharing, Ride-hailing, and Delivery Networks

The automotive manufacturing industry is going through major disruptions to business models. They have traditionally built and sold cars (the ‘thing’), but the outcome people want is to get from point A to point B.⁴ Automakers have been expanding their palette of services, moving into Mobility-as-a-Service (MaaS). GM has had a car-sharing service (Maven) for over two years, created its own ride-hailing platform (the service is still to be launched), and is planning to launch a robo-taxi service in San Francisco. Ford built a fleet management center to provide ride-hailing and delivery services in Miami. Daimler and BMW recently launched a billion-dollar joint venture, combining Daimler’s Car2Go carsharing with BMW’s route-management and booking services, taxi ride-hailing service, car-sharing, and parking services.

⁴ There is also an emotional and experiential side to cars for many people which may entice them to keep buying vehicles. However, some studies indicate that younger people have a more utilitarian attitude to transportation, without the emotional attachment to owning a vehicle that their parents may have had. Car companies want to be positioned to meet the needs of this next generation, with mobility services fulfilling the way they want to travel.

The Subscription Economy

Another trend is the rise of subscription-based businesses, where customers pay a fixed amount on a periodic (often monthly) basis to receive a regular flow of goods or services. These can be broadly grouped⁵ into three types of subscription services: 1) *Replenishment*—Regular resupply of same or similar items, 2) *Curation*—Receive a new and different set of items each period, to facilitate discovery, 3) *Access*—providing exclusive subscriber-only products, deals, and perks. Examples of subscription services span many different industries and include offerings such as Amazon Subscribe & Save, Dollar Shave Club, Ipsy, and Blue Apron. In addition to retailers embracing the subscription model, some manufacturers are starting to offer subscription-based services such as P&G’s Gillette On Demand, Hotel Chocolat’s⁶ Tasting Club, Sisley Paris’ Beauty Subscription, and Fender Guitar’s Play (online guitar lesson service). Subscription-based business models can provide higher repeat business, more predictable revenue, and more loyal customers. With this predictability, forecasts become more accurate and inventory levels can be better managed. Fulfillment can be planned further ahead, thereby lowering fulfillment/shipping costs, especially compared to the same-day “I must have it right now” buying patterns that are becoming commonplace.

Caterpillar—Subscription Service based on IoT and Machine Learning

[Caterpillar](#) (a major manufacturer of mining, construction, and agricultural equipment) offers subscription services that take in data from sensors on its customers’ equipment and use machine learning to provide intelligence across the customer’s fleet of equipment. It is part of their Cat Connect Services, which includes several services:

- *Equipment Management*—including multi-site remote equipment monitoring (improving utilization and maintenance), benchmarking (of fuel consumption, run/idle time, uptime), inspections (conducted by CAT), fluid analysis, condition monitoring, and customized maintenance and repair plans and execution.
- *Productivity Services*—Utilization reporting, geospatial mapping (3D map/topography models, created from drone imagery flying over the construction or mining site), benchmarking (equipment health, operations, resource allocations, and site productivity), operator and site supervisor training, and productivity monitoring and optimization (site design, resource allocation, crew scheduling, maintenance practices fleet configuration).
- *Safety Services*—Identifying gaps between leader and worker perceptions, monitoring operators’ sleep patterns, and align work schedules to minimize fatigue.



CAT’s subscription services are one part of their rich set of offerings, comprising their multifaceted business model.

⁵ Chen, Fenyo, Yang, Zhang, [Thinking inside the subscription box: New research on e-commerce consumers](#), McKinsey & Company

⁶ Hotel Chocolat is a bean-to-bar chocolate manufacturer. This means they process their own cocoa beans in-house.

IoT, AI/ML, Networks, and subscription models are often blended together in various combinations, as illustrated by the examples above. These enable new high value services to be offered by manufacturers and wholesalers, with resulting increases in differentiation, profitability, and customer loyalty. However, many new capabilities are required for an asset-based company to bring these new services to market.

Multifaceted Businesses Require Many New Capabilities

Adding a new business model to a firm's current mix is not to be taken lightly. Many factors must be considered, such as the competitive landscape, investments required for success, synergies with or conflicts/cannibalization of the company's existing business model(s), and new capabilities required for the new model.

Here we focus on this last point, the new capabilities required. The journey to a multifaceted business model requires companies to acquire many new people and skillsets, develop new relationships with customers and providers, implement new processes, and deploy new technology/systems (both product IP and enterprise IT).

New People, New Skillsets

Adding a new type of business model requires adding new people and skills to the enterprise. A manufacturer or distributor that decides to start offering their product-as-a-service, with built-in IoT (sensors, intelligence, connectivity) and predictive maintenance capabilities, becomes a high-tech software developer and hence will need to acquire software and computer/communications hardware engineering capabilities, as well as people who know how to manage those types of development projects. The approach to sales and account management changes a lot, requiring more 'farmers' and fewer 'hunters.'⁷ The service organization will likely change considerably as they take on dramatically increased responsibilities for maintaining the machines, including meeting demanding SLAs. Product management needs to think about products in a whole new way.



Acquiring talent, especially all at once during startup of a new type of business, may not be feasible. Many companies will outsource many of these new functions, at least initially, to reduce the risk and accelerate the launch of the new business. Later, they may decide to migrate those capabilities inhouse.

⁷ 'Hunters' are salespeople who love closing deals—as many and as big as possible. 'Farmers' are salespeople who thrive on creating long-lasting relationships with each customer, spending time with them to help make a positive impact on the customers' business (and thereby grow the account).

New Relationships with Outsourced Service Providers and Customers

To become more multifaceted, businesses often need to rely more heavily on outsourced service providers. A few key providers become mission critical for the core business. For example, they may outsource critical new product development, to gain access to specialized, highly in-demand expertise in software development, IoT, and artificial intelligence. They might need to establish a strategic partnership with a maintenance and repair network service provider, rather than trying to build out their own service network. They will then depend on that service provider to meet the critical customer SLAs. The outsourced service providers' onsite technicians become the face of the company to their customer. Consequently, a business needs to do an outstanding job of managing these critical outsourcing relationships.

The relationship with customers also often changes dramatically. For a company that just sells things, the buyer-seller relationship is transactional in nature. Once a company starts to become more embedded, selling and committing to deliver desired outcomes rather than things, the relationship becomes more strategic. The business becomes more tightly integrated, more of an extension of their customer's organization. This mirrors the reliance on outsourced service providers for critical functions that we just touched on. Thus, the outcome economy creates a more tightly knit web of companies, with more closely aligned incentives, deeper integration between the various players' systems and processes, potentially creating longer-lasting relationships.

New Business Processes, Culture, and Metrics

When incorporating new business models, a business needs new business processes. They often require changes to their business culture as well. For example, sales culture and methodology evolves from a primary emphasis on winning deals to a primary emphasis on nurturing and growing the relationships with the customer. This can require changing the metrics and compensation basis, not just for sales, but across the organization, to align more closely with achieving the *customer's* desired outcomes. The R&D process may need to collaborate with IT and sourcing personnel early in the development process. IT may morph from being solely internally focused, to becoming intimately involved in creating value-add services for customers, using the data from IoT and machine learning analytics. As an organization relies more heavily on outsourced service providers, the procurement organization may need to evolve into a mission-critical supplier performance management organization. Risk and performance management become elevated as meeting service level agreements and customer outcome metrics has major financial consequences.

New Technologies and Systems

Moving to many of these new models—such as subscription business, network-based business, IoT and product-as-a-service, and outcome-based business offerings—require the business to implement a number of new technologies and systems. These may include IoT technology integrated into their products, subscription management systems and billing capabilities, network-architected software platforms, and more advanced field service and SLA management systems.

Challenges for Smaller Businesses

Small growing businesses may view all of these changes as overwhelming and beyond their reach. They don't have to. Through a combination of the right outsourced relationships and the right inhouse platforms, smaller firms can 'play with the big boys.' Smaller firms may have more constrained resources, but they also often are more nimble, creative, and responsive than larger companies. Multifaceted business platforms are available that can give them almost all of the capabilities of much larger competitors. We have seen many small growing companies invest early in their lifecycle, implementing a cloud-based ERP system that provides them with a platform for growth—in some cases we've seen small startups grow to a billion dollars and more in revenue, on the same platform they started on. But it is not just about growing revenues. You need to consider whether the single platform can support different revenue models. Selecting the right cloud-based ERP core platform, with the diverse capabilities to support these different business models, is critical to creating a true multifaceted business platform for growth.

Multifaceted Business Platforms

Even if a business is not multifaceted today, they can prepare by putting in place the right platform for growth. With the right cloud-based core ERP platform in place, a business will not have to switch horses midstream and will be ready to effectively compete and grow into a multifaceted business when the right time comes.

Multifaceted Businesses Need Multifaceted Business Platforms

Enterprise business solutions (ERP, CRM, SCM, Sourcing and Procurement, etc.) are traditionally designed for one type of business—one type of system for manufacturers, a different one for distributors, and different ones yet for retailers, or for service providers, for software providers, and yet another for professional services firms. This is because each type of business has had distinctly different needs. But that is changing.

For example, manufacturers need a manufacturing execution system (MES),⁸ but in the past, distributors didn't. However, when a distributor broadens their offerings and starts doing kitting and light manufacturing as a value-add service for some of their customers, then they too need some of the functionality provided by an MES system (at least they need a 'light' version of an MES). Similarly, Software-as-a-Service companies need a subscription management system, whereas traditionally manufacturers did not. But as manufacturers start to offer product-as-a-service, then they too need subscription management capabilities.

So, what is a business to do? Trying to run a business using multiple core platforms is problematic for a number of reasons:

- 1) it is very challenging to provide a single face to the customer (for instance a single unified invoice);
- 2) Business process and data integration between multiple core enterprise systems comes at very high implementation costs and ongoing maintenance costs;
- 3) Multiple systems integrated together are inherently harder to evolve as the business changes, making the business more rigid, less agile;
- 4) The business won't have one view of the business without adding additional expensive layers.

⁸ An MES system manages manufacturing systems and factory floor data flows to enable effective manufacturing scheduling, execution, quality control, and production performance.

Therefore, it is better to have a single core business management platform that can support the wide variety of capabilities needed by a multifaceted business. This includes not just what the business needs today, but capabilities they may want in the future as they grow. Some key capabilities to look for, to enable growth as a multifaceted business, include:

- Engineering tools for managing combined software, hardware, and service development.
- Product lifecycle management, from concept to EOL (integrated into manufacturing and service).
- Manufacturing planning, scheduling, and execution capabilities for your type⁹ of manufacturing.
- Partner, promotion, and rebate management for multi-tiered distribution.
- Advanced service management, with SLA and outcome metric tools.
- Subscription management, including unified billing and revenue recognition capabilities.
- Project management and professional services management.
- Ecommerce, fully integrated into the suite, with authoring, website, and business workflows.
- Configure, price, and quote.
- Supplier management and SLA management for managing outsourced service providers.
- Retail/omni-channel capabilities, such as distributed order management and store execution systems (e.g. store operations, clienteling, etc.).
- Flexible forecasting and demand management, to handle multiple types of demand streams (bulk orders from retailers, bulk orders from multi-tier distribution, individual consumer purchases).
- Supply chain, logistics management, and S&OP.
- Network orchestration capabilities, to manage a network of providers and customers, with services such as brokering/request-matching, order tracking, logistics, and so forth.
- Micro-verticalization of solutions, to enable rapid implementation of the specific capabilities and processes needed by your particular business.
- Rich network of deeply integrated best-of-breed solution partners (since no one platform can do it all).
- Deep and flexible extensibility of the platform, to enable affordable and timely creation of unique differentiated services.

It may seem impossible to find a single ERP platform with all of the above characteristics, but some come quite close.¹⁰ The right cloud-based ERP platform will incorporate all of the above capabilities, either natively or via tightly integrated partners. This provides businesses with the agility to meet practically any future needs, enabling growth through business model diversity. Cloud-based systems with micro-verticalized rapid implementation will also help small business get up and running quickly with very low ongoing administrative overhead required. Growing business will find that the investment in the right platform, from the start, will pay off big time as they develop and expand into different new business models.

⁹ Whether you do make-to-stock, configure-to-order, build-to-order, engineer-to-order, batch process, or continuous process, the system needs to support the type of manufacturing you do or anticipate doing in the future.

¹⁰ A good example is [NetSuite](#).

Flogistix—A Multifaceted Oil and Gas Business Running on a Multifaceted Platform



[Flogistix](#) is an assemble-to-order manufacturer of onshore high-tech vapor recovery, compression, and water transfer equipment for oilfield operations. But they have evolved to become much more than just a manufacturer, describing themselves as “an oil and gas optimization company.” Their equipment is ‘smart iron’ (i.e. IoT enabled), outfitted with over 50 different sensors, providing data every few seconds about exactly what is happening at the machine. With this data, they provide their customers with a real-time control panel to remotely view the status of each piece of

equipment they use, as well as receive alerts when something needs attention. Flogistix’ larger compressors come with an edge server, enabling autonomous well optimization (unmanned adjustments and autostarts). Flogistix also sells a data/analytics subscription service (called ‘Flux’) providing access to all that data, with deeper analytics such as trend analysis and ‘over the air optimization.’

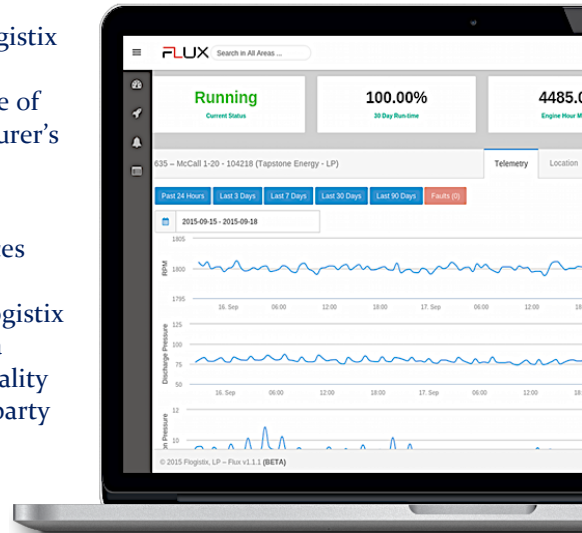
Customers can buy or rent the equipment. Flogistix provides preventative maintenance and repair services, billed on a parts and labor basis (some of the parts are covered by the original manufacturer’s warranty).

Thus, Flogistix is an industrial and high-tech manufacturer, a maintenance and repair services provider, a software/data subscription services company, and a rental company, all in one. Flogistix operates these diverse business models all on a NetSuite ERP system, with additional functionality from NetSuite-integrated best-of-breed third-party applications.

Flogistix uses NetSuite for WIP (work-in-progress) inventory control during manufacturing. That is being enhanced with an RF-SMART system to provide barcode scanning of inventory and processes throughout manufacturing. By tracking the start and finish of every step, Flogistix is able to track exactly how long each task is taking, measure productivity, and do activity-based costing/analysis.

They use NetSuite’s inventory and FAM (Fixed Asset Management) modules to track rental assets—each customer location is set up as a virtual warehouse to which rental units are transferred. The transfer order includes billing information, automatically sending rental unit specifics to the billing department and rental unit data to Flogistix’ inhouse field service software. They track individual serialized part numbers in the manufacturing plant and in the field. Thereby, they maintain individual unit profiles, with up-to-date as-built and as-serviced serialized BOMs for all systems. This helps with service (such as for recalls of parts with specific serial number ranges) and for quoting (running queries to find a specific configuration).

Flogistix salespeople use ConfigureOne for CPG (Configure, Price, Quote). When they are at the customer’s site, discussing the client’s needs, the salesperson does not have to say “I’ll get back to you later with equipment availability and a quote.” Instead, they can then enter configuration



information, find available units, and provide a quote to the customer right there on the spot. Soon, the system will be able to make recommendations about which equipment to use, based on the well conditions, production amount, and other parameters the salesperson enters. The system will then create a rental contract which the customer can sign, all while the salesperson is still there with them. Strike while the iron is hot!

Flogistix uses NetSuite's SuiteBilling to present a unified invoice to the customer. It is able to support Flogistix' complex mix of equipment sales, rental, repair services, and subscription services, all automatically in a single bill. Further, it supports the complex behind-the-scenes revenue recognition rules for these different types of income streams.

Using the NetSuite platform, along with best-of-breed functionality from NetSuite's partners, Flogistix has been able to rapidly grow their business, while controlling costs. Their goal is to become *"the leading onshore domestic provider of high-tech compression products and services within the next three years."* Their diverse products and services, and the multifaceted platform they've invested in, will be key enablers of them achieving that goal.

Taking the Leap

There are risks and significant investments needed to expand into new types of business offerings. It should be done with prudence, but also with a realization that the risk of continuing with business-as-usual might be much greater than the risks in trying to expand your business model. If the competition is forging ahead with new offerings and approaches, or there are bold new entrants gaining market share, then a firm's survival may be at stake. A business needs to assess their own strengths and weaknesses and consider how they can provide more value ... a *lot* more value, to their customers.

Starting these transformations sooner gives a company time to learn, try things out, and start acquiring necessary resources. Wait too long and those resources become even scarcer as the good developers, salespeople, domain experts, and partners have been snatched up. Start soon enough and the journey can be made incrementally, with pilots and experiments. Postpone too long and eventually a bet-the-farm investment may be the only option left.

It is never too soon to start putting in the right foundational pieces, such as a business platform that supports multifaceted business models. So, if you do your homework, select and implement the right platform and partner(s) early on, and take the leap, your chances of success will be increased tremendously.



About ChainLink Research

ChainLink is a recognized leader in custom research and advisory services, with a focus on supply chain, Internet of Things, and blockchain. Founded in 2002, our emphasis from the start has been on inter-enterprise interactions and architectures ('the links in the chain'). We have conducted over 75 primary research projects, interviewing and surveying over 10,000 executives and professionals. Much of our research focuses on industry-specific use cases, business cases and ROI, and drivers/inhibitors of technology adoption, and business change. As a result, we have developed a deep, multi-industry practice, founded on real-world, validated, supply chain-wide, end-to-end perspectives that have helped our clients understand, plan, and succeed as they move into the future.

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