

Dark Data:

A foundation for sustaining competitive advantage

Overview

Equipment finance companies today are flush with opportunities presented by data. Digital origination, contract servicing, and accounting systems have gathered data on business-critical outcomes like underwriting, funding, and payment delinquency for as many as thirty years for some companies. Most of this data is dark – rarely accessed or used by management in daily operations – even though it holds the historical record of the competitive success of the business strategy. The modern tools of machine learning and AI are ready to exploit dark data to improve competitive advantage and overall business performance.

Competitive strategy

Michael Porter is considered by many to be the founder of modern business strategy. He is the author of 19 books and more than 130 articles and serves at Harvard Business School as both the Bishop William Lawrence University Professor and the director of The Institute for Strategy and Competitiveness, which was founded in 2001 to further his work and research.¹ Porter may be best known for his Five Forces model, used to analyze a company's competitive environment with the purpose of creating competitive advantage through strategy. To this end, Porter defined three generic strategies any organization could use: cost leadership, differentiation, and focus. Porter encouraged companies to select and execute one of these generic strategies and avoid strategic mediocrity or below-average performance by getting "stuck in the middle."² What's interesting is that dark data can actually drive each of Porter's strategies to create a competitive advantage.



Porter's three generic strategies

1. Cost leadership
2. Differentiation
3. Focus



What is Dark Data?

Gartner first defined dark data as “the information assets organizations collect, process and store during regular business activities, but generally fail to use for other purposes.” Dark data was named after dark matter, the name physicists gave to unseen energy in the universe. It's thought that as much as 80% of the universe is covered by dark matter. Organizations often retain dark data for compliance purposes only, so the storage and securing of data often creates more expense and sometimes greater risk than it does immediate value – meaning most data is stored but never actually used.

Most dark data is stored in data repositories and remains dark until it's processed or turned into actionable information. Dark data has not been categorized, labeled, or organized using any kind of tool. When activated through aggregation and analysis, dark data dramatically expands business intelligence. According to *Computer Weekly*, 60% of organizations believe that their own business intelligence reporting capability is "inadequate" and 65% say they have "somewhat disorganized content management approaches," indicating the growing need for organizations to better leverage their own data to make informed business decisions.

“The more advanced technology and AI are used to analyze dark data, the higher its value becomes. Dark data and the analytics of it will be the foundation of the next level of industrial productivity.”

– Scott Nelson, President and CDO, Tamarack Technology, Inc.

Dark data driving competitive strategy

Tamarack's AI team has focused on the dark data available within equipment finance and has built and deployed a suite of products that aggregate and analyze data for business intelligence. The AI products use data extracts that organize all of a company's data into a DataMart with a proprietary data schema built specifically for equipment finance lessors. Let's look at how such a system unlocks dark data and allows machine learning and AI to help define each of Porter's generic strategies to create competitive advantage for equipment finance companies.

How pervasive is dark data?

- IBM says more than 90% of the data generated today is unstructured data that is largely unused
- According to the IDC Research, the volume of dark data doubles every 12 months at twice the pace of Moore's Law of doubling every two years
- 85% of companies today don't have the tools necessary to unlock the value of dark data

Organizations retain dark data for a multitude of reasons, and it is estimated that most companies are only analyzing 1% of their data



1. **Cost Leadership:** AI-based prediction automation saves time and money

Cost Leadership is a competitive strategy wherein a company aggressively seeks efficient, large-scale production facilities, economies of scale, and employs tight cost controls to have lower cost products and services than competitors. Over the last century, automation has been the primary tool of businesses focused on cost leadership as a strategy. Production speed and economies of scale reduce both variable and fixed costs per unit. The industrial world has moved through three stages of automation and has now entered the fourth – prediction automation. Prediction automation is the first to rely on data more than logistics and economies of scale to reduce costs. Prediction automation will be a powerful tool for finance companies who want to compete on cost.

Advances in machine learning and AI have made dark data more valuable by enabling a focus on outcomes – like the primary costs of doing business. Such analysis then enables organizations to automate and improve workflows to reduce operating costs. When used properly, dark data helps business leaders make informed decisions in real time, whereas traditional manual approaches would take days or weeks to process. As the saying goes, “Time is money.”

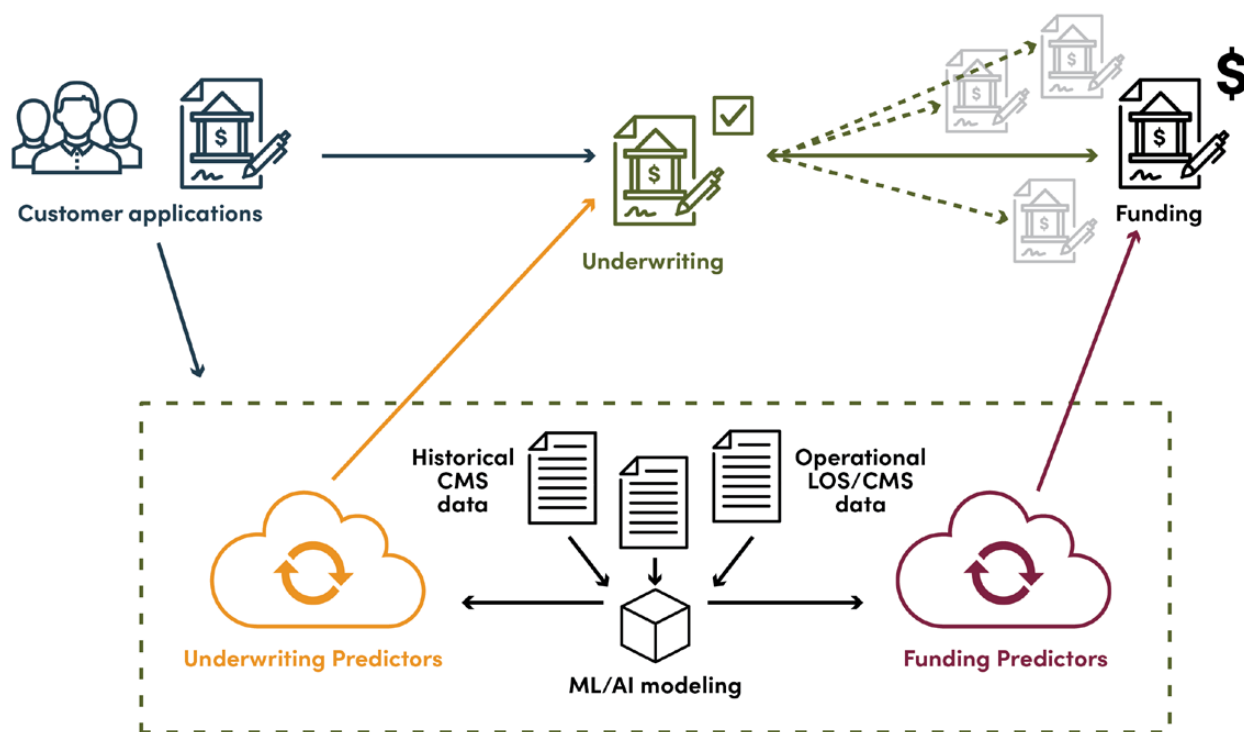
Consider the cost profile of lease origination. Networks of brokers and vendors originating leases generate a lot of data quickly. This is the good news. The bad news is that brokers and vendors generally don’t have the systems in place nor the motivation to store the data after completing a transaction. Because they are so transaction-oriented, their data tends to be short-lived within their systems. The lessors with whom they work, on the other hand, typically capture and keep data on past exchanges and then service the deals, collecting data throughout the life of the lease. As a result, lessors have data from origination all the way through financial outcomes – both good and bad. This data holds the gross margins of the deals originated by partners as well as the cost of collections and losses. Unfortunately, most of this lessor data is “dark” – collected and stored but not used for business purposes like improving broker and vendor partnerships. Herein lies the value unlocked by Tamarack’s AI products.



The Tamarack DataMart aggregates a lessor's historical and real-time data from all systems, LOS, 3rd party sources, and CMS, into a single database. The deals in the LOS stream are tagged with source information, allowing the system to constantly monitor deal flow and the quality of the deal from vendor/broker partners. The LOS data is combined with the data from the CMS to build models that associate deals with outcomes in the context of the lessor's underwriting and funding strategy. Tamarack has outcome predictors for delinquency, term, and pricing tier.

Prediction models, when shared with broker and vendor partners, help improve contributions to the lessor by matching deals with the lessor's portfolio requirements, thereby growing all parties' businesses faster. Such optimization reduces the costs of mismatched deals, customer acquisition, and contract servicing while improving gross margins and portfolio performance. The use of dark data enables lessors to aggressively measure and reduce costs and improve competitive advantage.

Dark data trains models for better, faster lending decisions



2. Differentiation: Understanding risk makes being different easier

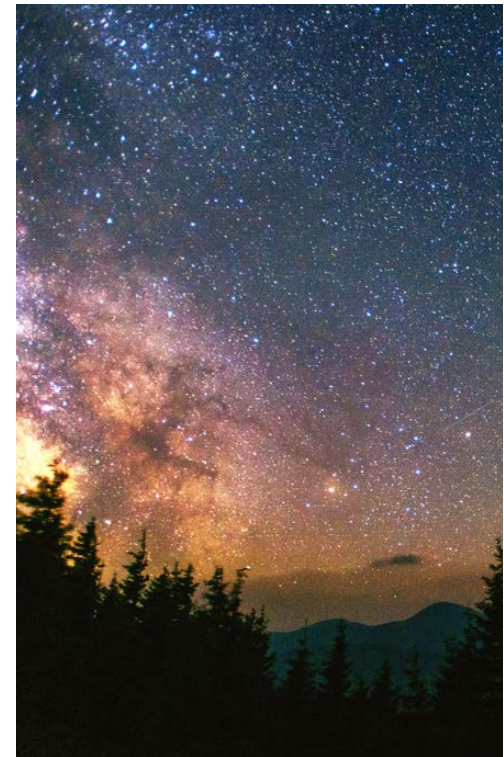
A differentiation strategy is used to distinguish an organization from competitors through the value its products or services deliver to customers. According to Porter, if a product or service delivers a unique value, the differentiation strategy can build customer loyalty and “competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's cost of creating it. Strategy is about making choices, trade-offs and deliberately choosing to be different.”

Being different in the way that customers prefer is also an example of innovation. Innovation is, without doubt, perhaps the fundamental principle of a differentiation strategy. The challenge, then, is how to be different without suffering the risk of being different in a way that does not win. This is where dark data can inform and AI can help understand the risk of each differentiation so that the risk of being different is worth the benefit of winning.

Let's consider two ways that dark data and AI can support a differentiation effort. First, consider a lessor who has traditionally only served bank-level credits, looking to expand its market into the larger and more varied world of B and C credits. The Tamarack Tier Predictor can identify at the point of application whether a deal is going to fit the B and C credit expansion strategy and, if associated with delinquency prediction, can help quantify the risk of that deal within the strategy. The AI predictors guide the business as it expands its market into higher risks with higher returns.

Next, consider a construction and transportation lessor looking to expand its regional market share in medical capital equipment. The lessor's historical data can support Predictors for their existing market, but they may also consider how the different classes of equipment are alike – price, durability, residual value curves, etc. If the equipment has similar characteristics, the business might then use the predictors built on construction and transportation data but abstract it to medical equipment of similar cost, durability, and usage to engage the medical equipment market. Initially the predictor will be agnostic to the industry classification and focus on key parameters of the equipment and lessee business. Over time, subtleties of medical vs. transportation payment tendencies may arise, but abstracting the predictor to equipment and business characteristics will provide guidance to the market expansion.

Tamarack's AI products support and strengthen differentiation by first modeling the business approach, quantifying risks of extension into new markets and presenting business intelligence on initiatives in real time as well as a portfolio context. Second, Predictors advise the business with measured risk probabilities to improve overall productivity by identifying strategic deals while avoiding undesirable outcomes.



"Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of values."

Michael Porter
Harvard Business Review (1996)



3. Focus: Dark data identifies what not to do

Focus is a competitive strategy that emphasizes concentration on a specific regional market or buyer group: a niche. The company will typically combine this focus with either a differentiation or cost leadership strategy, but only for a narrow target market rather than offering it industry wide. The company first selects a segment or group of segments in an industry and then tailors its strategy to serve those segments best to the exclusion of others.²

Dark data can help a focus strategy in three ways. First is **segment identification**. The lessor's dark data provides the basis of which segments provide the best business performance as well as those that are wasting resources – providing less return. This performance analysis can define identifying characteristics which can in turn filter incoming business to match the niche and avoid the “what not to do.”

Second, the **problem with niches** is that they can constrain the size of the available market. But if the niche is defined by its financial outcomes rather than its input characteristics, AI models can effectively scan and identify similar outcomes across a broader array of market inputs thereby increasing the overall addressable market for a strategy.

Third, **deal data** includes information regarding the business partners at origination. Analysis of outcomes for vendor and broker partners can provide performance analysis of these partners, which in turn provides direction to program and resource focus at the front end of the origination funnel. Partner focus, like market focus, will significantly improve business performance.

The key to all three dark data uses for strategy focus is business intelligence – reporting and analysis of all of the data generated by operations, past and present. The Tamarack Data Console is just such a business intelligence solution. The Data Console aggregates the business' historical data and ongoing data streams in one place and then segments and analyzes that data for business measurement and strategic focus.

"The essence of strategy is choosing what not to do."

Michael Porter
Harvard Business School



Dark data empowers strategy

Lessors today are sitting upon a wealth of dark data. Many have already begun tapping that data to better understand their operations and improve financial performance. But the opportunity for improvement is not limited to the holder of the data. Dark data can empower other stakeholders to improve their contribution to a partnership as well. Lessors have the responsibility here because their “matchmaker” partners do not keep data. The Tamarack Data Console allows lessors to unlock their data using AI and prediction for the sake of their own businesses and for the benefit of their customers.

¹ <https://www.isc.hbs.edu/about-michael-porter/Pages/default.aspx>

² <https://www.business-to-you.com/porter-generic-strategies-differentiation-cost-leadership-focus/>

Guiding financial innovation™

As the equipment finance industry continues to evolve, Tamarack will be there at every turn to help lessors embrace change and explore risk in order to meet the changing business requirements needed for success.

Contact us today to get started.



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About Tamarack Technology, Inc.

Tamarack Technology is the leading provider of AI-based automation and risk management software along with professional technology services specifically for the equipment finance industry. For more than 20 years, Tamarack has been helping lessors protect their investments, improve business performance, and provide customers with access to solutions that enhance operations and financial performance. Tamarack's suite of AI products connect and integrate key ecosystem applications using historical and real-time data to automate burdensome manual processes, drive operational efficiency with better, faster decision-making, and improve organizational productivity. The company provides professional services including integration, implementation, and data migration services for the leading industry portfolio management platforms.

In 2020, Tamarack identified the need to help customers improve their operational and financial performance through the integration of equipment finance software platforms with emerging digital technologies. To support its vision, Tamarack developed a suite of artificial intelligence (AI) products that leverage a lessor's historical and operational data to predict financial outcomes and improve operational performance. The benefit: automation of the burdensome and often manual processes that weigh down workflows and slow financial decision-making. Through AI, Tamarack is further helping lessors protect their investments, improve business performance, and provide customers with access to solutions that enhance operations and financial results.

For more information, please email us at discover@tamarack.ai or visit Tamarack.ai to learn more.



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