



BLOCK

Understanding more about this emerging technology and what it can do is the next step to application.

By Susan L. Hodges

BLOCKCHAIN IS LIKE TV IN THAT YOU DON'T HAVE TO UNDERSTAND EVERYTHING ABOUT IT TO BE ABLE TO USE IT. But a basic knowledge of what blockchain is and what it can do is vital to thinking about how it can be applied in our industry. And since few of us can rattle off a clear definition, let's start with one built from several sources that speaks to its potential application in the equipment finance industry.

Blockchain is a decentralized, shared electronic register in which transactions between two or more users belonging to the same network are stored in a secure, verifiable and permanent way. Blocks are data containers, much like files, into which can be placed transactions and documents and data associated with them. Once entered into the chain, blocks can be viewed by anyone given permission to access the chain. New blocks can be added by authorized users, but existing blocks cannot be edited, moved or changed in any way.

This past summer, ELFA, Reuben Creative, LLC and The Alta Group conducted a survey of ELFA member companies to gauge their awareness of, opinions about and current involvement with blockchain. Deb Reuben, President of Reuben Creative, and Valerie Gerard, Senior Managing Director of The Alta Group, found the results encouraging and, in some instances, surprising.

Survey Says...

Of 151 respondents, three-fourths of whom were lessors, 65% rated their level of understanding about blockchain as "novice" or "none." Yet, 69% agreed that blockchain has relevance for equipment finance, and 60% said it has potential as a competitive advantage. A whopping 78% strongly or moderately agreed that blockchain could complement their existing systems. This is key, because business-model innovation isn't about any single technology; it's about what could happen as multiple technologies and new thinking meet.

"I was surprised at how thoughtful the survey responses were," says Reuben. "Their answers tell us that companies are paying attention to the hype around this technology and have a desire to better understand it. Companies also realize that



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technology is no longer a back-office issue or the other guy's problem, but an integral part of today's business strategy."

For Gerard, the surprises were twofold: that so many respondents recognized that blockchain has direct relevance for the equipment finance industry and that more than half see it as a possible competitive advantage. "This is heartening because the industry has had somewhat of a 'wait and see' track record when it comes to adopting new technology or origination techniques," she says.

Reuben says the responses also indicate a significant need for blockchain education, since 53% said lack of skill and understanding is a possible barrier to adoption, and just 5% said they perceive moving forward with blockchain as a critical strategic priority.

"Clearly, there's a wide gap between those researching and thinking seriously about industry applicability and those who are on the sidelines at the moment," says Gerard. "Full adoption of blockchain [in our industry] may occur only after it is proven and well understood in other industries."

But Reuben is encouraged. "As Valerie notes, our industry is often a laggard when embracing newer technology," she says.

"But survey responses show that there's already some investment in blockchain, on education and discovery."

Gerard says comments provided by the survey respondents show enthusiasm for implications of blockchain pertaining to the left side of the balance sheet, such as smart contracts, portfolio performance, asset utilization and fraud mitigation. "That was expected," she says, but adds, "Where I think there's huge potential is for the right side of the balance sheet in terms of improving funding from revolvers to securitizations."

The survey also asked how companies felt about participating in a blockchain consortium with competitors, and 17% expressed interest in some level of involvement. Says Reuben, "This is promising, because we don't need the entire industry to participate to form a minimally viable network and begin testing concepts."

Reuben has been exploring the formation of a consortium of equipment finance companies willing to partner in the first industry-wide blockchain since early 2018. "There has been a lot of talk about blockchain at industry events, but not a lot of action," she says. "The power of blockchain lies in the possibilities for

COMING
SOON

TECHNOLOGY INNOVATION WORK GROUP

Established by the Association's Board of Directors, the work group will seek to monitor, analyze and understand the impact of new technologies on the industry and ELFA businesses. "At this point, the Group is still in its infancy," says Deb Reuben, who will serve as Chair. "But you'll be hearing from us soon."

business-model innovation and benefits to the participants in a business network. It seems as though we have enough interest to start something in our industry now that we're beginning to surface potentially viable use cases. We saw five of these during the recent Operations and Technology Conference workshop on blockchain. And when we conducted live polling at the Conference about initiating an industry-wide project using blockchain where we all will benefit, 55% responded 'Absolutely' and 45% responded 'Possibly.' No one said no."

Changing Expectations

Wayne Super, Managing Director, Capital Markets, for Cisco Capital Corporation in Atlanta, says he thinks many equipment finance companies are looking for concrete steps they can take with blockchain. But he believes the next task is to understand that, by itself, blockchain will have a marginal impact on industry members. "Reorienting your entire business around blockchain is not the way to start," he says. "Rather, focus on meaningful areas where inefficiencies, conflicts, provenance or authenticity issues exist, such as reconciliations, asset management, documentation, UCC filings and compliance. Then slowly build out from one or more of these points."

In a recent survey of ELFA members, 69% agreed that blockchain has relevance for equipment finance and 60% said it has potential as a competitive advantage.

Super also believes tech leaders are combining three technologies to profound effect. "There is a confluence of technologies happening—blockchain, machine learning and the Internet of Things, or IoT—and it's the convergence of these technologies that will have a meaningful impact," he says. "For financial services particularly, the union of these three is what will drive change."

He provides this example: "Think about supply chain production and financing applying IoT, machine learning and blockchain all along the way," he suggests. "Data is gathered from production sensors monitoring material and labor usage. Machine learning is employed for predictive supply and demand analytics, providing feedback into production capacity and utilization. Blockchain would allow for efficient materials and asset management and transfer using embedded smart contracts, electronic signatures, payments, record keeping and reconciliation in the production ecosystem. Along the way, just-in-time financing in the right amount is deployed across the production process from raw material acquisition to finished goods using a blockchain network and smart contracts with a banking, insurance and logistics ecosystem. Everyone involved would have the same immutable information at the same time. Eventually using

an end-to-end blockchain will ensure provenance and authenticity and reduce administrative time, improve production cost, increase security and cut financing cost."

Drew Martin, Chief Technology Officer at Channel Partners Capital in Minnetonka, Minnesota, provides a second example involving a provider of business credit data. "Let's say we submit our billing history to this company to aggregate so others can evaluate it as part of their risk evaluation strategy," he posits. "This company then begins using blockchain and requests that everyone using their services place their lease/loan contracts on the blockchain, too. Then additional documents are added so that the blockchain grows gradually and users can see that because they contribute data, they have access to the data of others. Blockchain needs the participation of enough cohorts to make it worthwhile," says Martin. "Once that happens, the benefits snowball, because it's such a robust technology and can be used for so many purposes."

Martin notes that very large organizations already using blockchain are on-boarding their customers and partners so that they, too, can continue working with these organizations. "But in our industry, no large organization has stepped forward to sponsor a blockchain and ask others to cooperate," he says. "I think at this point, that's our biggest barrier."

The Power of Use Cases

As at other companies, actual blockchain initiatives underway at IBM have nondisclosure agreements preventing outside discussion. But Bart Cant, Partner, Blockchain Services, says hypothetical use cases such as those created at ELFA's Operations & Technology Conference illustrate how blockchain could be applied in equipment finance. Good use cases, says Cant, have the following components:

- A network of business participants, each of whom generates transactions impacting the data, which is maintained by multiple participants
- Stakeholders who independently maintain similar data sets that document their own version of events
- An environment of minimal trust in which each participant acts independently but looks to impose new layers of verification or requirements, and

- Dependency on or interaction with intermediaries to complete the transaction.

“The traceability of assets as they move through their life cycle is a very good use case for equipment leasing, as it provides historical data about the asset that could be useful,” says Cant. “Documenting the life cycle of an airplane, for example, would mean that all servicing records and information on parts, including their origin, would be stored in the blockchain, providing a much more comprehensive view of all equipment components. This would be important when the plane is remarketed, because instead of undertaking a large data-gathering process at that time, you’d already have a much better data set, built over the life cycle of the asset, that cannot be tampered with.”

Cant says two more equipment finance areas with blockchain potential are the syndication of large projects and the securitization of leases and loans. He observes, “All three could be fodder for new business models that better align the costs and usage terms in a lease with the underlying asset.”

Like Reuben, Cant sees value in key members of the industry coming together to launch blockchain, particularly to document processes end to end. “Similar initiatives are already occurring in the mortgage industry, and I see a great opportunity to bring large and small equipment finance companies together to provide an end-to-end view of assets,” he says. “As we’re doing with other industries, we want to get involved in real business problems of equipment finance.”

Happening Now

Keith Letourneau, Partner at Blank Rome LLP in Houston, has a similar aim. Letourneau is a maritime attorney who became involved with blockchain through a client query. “It’s such an interesting topic that we developed a working group on blockchain and crypto-currencies at our firm,” he says. Letourneau participated in a panel discussion on technology innovations and disruptions at ELFA’s Annual Convention in October.

As software becomes more sophisticated and able to handle more aspects of blockchain, he expects major advances in many industries. “The maritime industry is already implementing it to track containers aboard ships,” he says. “A major player made a decision to invest in blockchain and then began talking to its vendors, suggesting that they participate. That’s how it gets going.”

Letourneau views blockchain as the overlay that will eventually connect equipment finance companies, service providers and regulatory agencies in a secure network. “I think the potential applications in equipment finance are profound,” he says. “Big data produced by the Internet of Things and placed on blockchain will alter how warranties are applied and when they expire. It will change when goods are ordered and how people contract for things, such as by hourly usage. It will bring so much transparency

to the equipment life cycle that people will be able to know the exact condition of every piece of equipment on the blockchain.”

Lawyers will handle disputes arising over laws and agreements governing the use of blockchain, Letourneau thinks. “But I believe in equipment finance, the emphasis will eventually be on rewriting warranties and structuring payments,” he says. “It won’t solve problems where disputes arise between parties, but it will have great utility to tighten processes and eliminate certain intermediaries.”

Because blockchain requires more than one player to be most effective, Reuben thinks the equipment finance industry as a whole needs to change the way it approaches problem-solving. “We’re already a network of networks, if you think about it, and we need to begin collaborating across those networks,” she says. “We need to be looking at business models and upper-level issues together instead of only at our own companies. In this way, we can further explore use cases to identify opportunities to form minimum viable networks of participants.”

Drew Martin echoes the theme. “Applying blockchain internally won’t add much value,” he says. “It’s a community component that requires bringing five or six equipment finance companies together to start sharing data.” He pauses and then adds, “You know, even two companies could do it. We have to start somewhere.” ☰

SUSAN HODGES writes about equipment finance and other business topics from her office in Wilmette, Ill.

RELATED RESOURCES

For more on blockchain, access these resources from the Equipment Leasing & Finance Foundation:

- **New Technologies Video** – A comprehensive visualization for how artificial intelligence, blockchain and smart contracts will impact the equipment finance model over the next five years. <http://bit.ly/2PcoZ1i>
- **Blockchain: Staying Ahead of Tomorrow** – This article from the Spring 2017 *Journal of Equipment Lease Financing* offers an overview of how blockchain works, implementation hurdles, the implications for smart contracts and more. <http://bit.ly/2Ni41wm>
- **Three New Technologies Whose Time Has Come in Equipment Finance** – This article from the Winter 2018 *Journal of Equipment Lease Financing* illustrates how both equipment finance companies and their customers will benefit from early adoption of artificial intelligence, blockchain and smart contracts. <http://bit.ly/2DSj6FB>