

Blockchain, Transparency, and the Future of Nonwovens

Sir Francis Bacon was the first person attributed with saying, “Knowledge is power.” What was true in 1597 is certainly even truer still today!

The fact that knowledge is power is no more evident than what we witness in the buying behavior of today’s consumer. With the universe of information in the palms of our hands today, consumers are much more educated about the products they purchase. They seek to know more about how a product is made, where and when it’s created, and what it’s made from. Consumers are demanding transparency from brands in order to build trust and earn their loyalty.

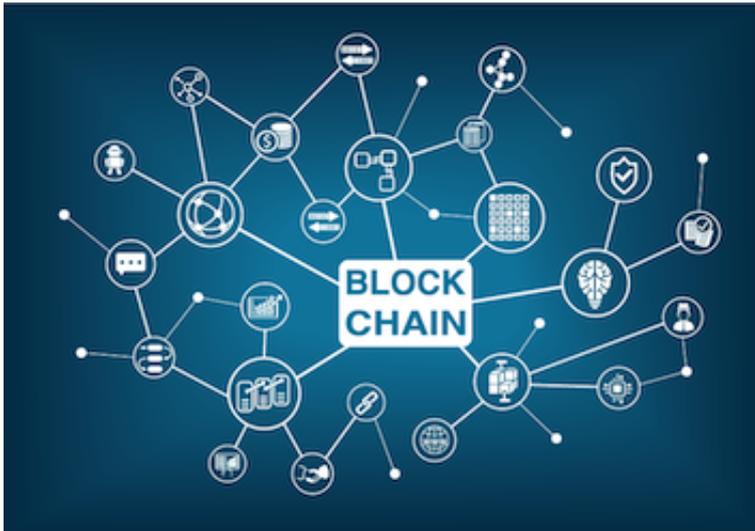
Growing Demand from Consumers, Advocacy Groups for Transparent Sourcing

Many industries have been reactionary to consumer demand for knowledge. But with respect to baby and femcare products (disposable diapers, pads, liners, and tampons), brands have been more proactive, taking the lead and initiating the exchange of product information. Currently, there are no federal mandates to disclose the ingredients or chemicals used in these products. However, there is growing pressure coming, [both from consumer advocacy groups and the general public via social media](#), for state and federal lawmakers to add a labeling requirement for feminine hygiene products. In 2019, four states have introduced legislation requiring feminine hygiene manufacturers to list product ingredients on their packaging.

Acknowledging this trend and listening to their customers, [a growing number of feminine and baby care brands are voluntarily disclosing the ingredients of their products either on their packaging and/or providing the details on their websites](#). Even retailers are realizing the importance of this consumer trend, with some providing premium shelf space to products that share ingredients on their packaging.

With smartphones in-hand as we shop, the information we find online is as much a part of the decision-making process as what’s on the packaging itself. As a result, brands and retailers are finding ways to bring this information to the consumer in a complete and transparent way.

Blockchain--a Way Forward



One of those ways is through a relatively new technology called blockchain. Originally created to manage cyber-currency transactions like bitcoin, this technology is starting to be leveraged by many other industries as a platform for traceability and transparency throughout the supply chain and on through to the consumer of products.

At a very basic level, [a blockchain is a distributed ledger or database of recorded transactions and information among a network of interested parties](#). Activities and information are recorded from each participant of a network in a secure and dependable manner. Basically, it's a list of records, or blocks, that are linked by cryptography, a timestamp, and a transaction data record. Once validated, the record is added to a block. Each block contains a unique code or hash. Each block also contains the hash of the previous block of the chain. Users create chains by adding blocks together in a specific order, with each block using the same hash codes. The hash codes on the block keep records safe since any change in the original data that was recorded will make a new hash code and break the chain. Simply speaking, this system of blocks and hash codes makes it nearly impossible to hack the data. While users may add data to the blockchain, they may never modify it. The result is a distributed ledger that provides transparency and traceability throughout the process.

Transparency is a key factor in building trust and brand integrity with consumers. By leveraging blockchain technology for supply chain management, brands will be able to build consumer trust by providing complete transparency of not only what's in a product and its source of materials, but also where it comes from, how it's made, and provide ironclad certification of claims and quality. By providing this information in an open and transparent way, brands can earn the trust of their consumers building brand loyalty for the long term.

Current Applications of Blockchain Bode Well for Cotton

An example of this technology in the cotton industry has been demonstrated recently with a [new initiative by The Seam, a provider of trading and technology services to agribusinesses, in coordination with the U.S. National Cotton Council](#). The Seam's CEO, Mark Pryor, acknowledges the importance of traceability and transparency in the supply chain for cotton, stating that "in cotton, the brands and the retailers... are demanding more traceable, transparent information throughout the supply chain." Because all US cotton is assigned a PBI, or Permanent Bale Identification, which specifies its unique quality, characteristics, and value, utilizing blockchain technology will enable a bale of cotton to be traced back to the land it was

grown and how it was produced. The finished product sold to a consumer now has the potential to be transparent and [traced back to the actual farm where the cotton was sourced, as well as the sustainability practices used in growing it](#). The full deployment of this new initiative from the Cotton Council is set for January 2020.

Barnhardt Purified Cotton has the ability to participate in blockchain activities and transactions as we work closely with our suppliers and customers on an ongoing basis. We have been a willing partner as a raw material supplier of Purified Cotton® used in hygiene products, contributing to the supply chain credibility that consumers are demanding from the nonwovens industry.