ABSTRACT

Purpose: The Mergers & Acquisitions process are characterized by the fact that companies rely so much on attorneys, external deal advisors, auditors, tax consultants and other sorts of professional intermediaries. This results in both, high costs and considerable time expenditure.

Design/methodology/approach: The lengthy and cost-intensive process makes it particularly difficult for enterprises to profit from any Mergers & Acquisitions transactions.

Research limitations/implications: In However, with the advent of Cryptocurrencies, Initial Coin Offerings, and Blockchain implementation, Blockchain and Machine-Learning as technology can be used across the whole bandwidth of the Mergers & Acquisition process, from letters of intent, asset to equity sales, through all stages of the due diligence into post-transactions integration. In this article, the researcher will explore and further elaborate on the comprehensive Mergers & Acquisitions process within the Blockchain.

Originality/value: This paper is original

Paper type: Research paper

Keyword: Blockchain, Due Diligence, Mergers & Acquisitions, Smart Contracts, Start-ups.

I. INTRODUCTION

As new technologies emerge, and innovation keep pushing the boundaries of mankind even forward, the Mergers & Acquisitions (hereinafter M&A) process which pertains to business accumulation and economic growth becomes cost-effective and easier to pull off than the conventional methods. According to Group (2019), blockchain-focused M&A activities are projected to grow to over 300% in the upcoming years.

In 2019, 79% of companies expect a further increase in the average number and volume of M&A transactions (Freiland, D., Middelhoff, D., & Waßmann, 2019). Technology has prompted a tidal wave of disruptions affecting various sectors and M&A is among the good strategies for companies to stay one step ahead of the competition. The ongoing spike on M&A activities signals a greater possibility for blockchain integration and what was initially deemed as market consolidation could also become the next step in strengthening the key players within finance, tech, innovation, and more industries.

As we head into the third decade of blockchain, we witness that the technology is disrupting the way we do business. Since its humble beginnings in 1991, the technology is credited as a ledger of “a trusted solution for tasks requiring a shared, trusted, and tamper-proof database.” Interestingly, commercial applications like trade finance, clinical record-keeping, provenance verification, taxation, voting, and cross-border payments are being managed efficiently through blockchain technology.

In this article, the researcher explores how blockchain M&A transactions are organized, and why implementation of blockchain technology could be a strategic priority for M&As.
II. RESEARCH METHODOLOGY

The problems raised by the researcher in this article is further examined using the normative juridical approach. Normative legal research or literature includes research on legal principles, whereas the research methods is accomplished by collecting data in accordance with what occurs in the real world, then the data is compiled, processed and analyzed to be able to provide an concluding overview of the existing problems.

A. Backgrounds

a. Mergers & Acquisitions

Mergers & Acquisitions (M&A) depicts the actions required during the consolidation of companies through financial transaction vehicles like mergers, acquisitions, purchases, assets swap, share transactions, and management acquisitions. It is a complex, time-consuming, and costly process involving a team of bankers, auditors, regulators, institutional investors, arbitragers, government, equity partners, and advisors. The other layers of complexity include a variety of payment options and unique objectives of the deal for each company.

The term M&A denotes the process of one company combining with another. Under the M&A umbrella falls a list of transactions including mergers, wherein one company will take over another company; acquisitions, wherein the acquiring company will obtain the majority of the stake of another firm, not changing its name or altering its legal structure; and consolidation, wherein both stockholders of the companies will approve and create a new company.

The main reasons why M&A is being conducted can be summarized in two words: synergy and growth. The most associated word for M&A is synergy, which in this context means that the performance will improve as the costs will lessen. Typically, a business will attempt to merge with another business that can complement its strengths and mitigate its weaknesses. Also, M&A can give a company an opportunity to expand and grow further without doing solely the work themselves.

The M&A proceedings is divided into a preparation phase and an implementation phase. The preparation phase involves defining the objectives and strategies of the target project, as well as the research and market analysis to identify potential collaborators. Alongside this phase, one of the first stages of M&A is done — due diligence. This signifies a complete review of documents to evaluate legal, financial, and technical risks by a potential buyer or its agents before purchasing an asset or a company. During the implementation phase, potential deal partners are approached and once both parties have come into a settlement, a non-disclosure agreement (NDA) could be signed. After this, a few more meetings and discussions will occur until the acquisition process will be completed.

The M&A process usually consists of a comprehensive team in which companies rely on corporate experts such as lawyers, external M&A advisors, auditors, and tax consultants. Typically, the manual process results in both high costs and considerable time expenditure. The lengthy and cost-intensive process, as well as the uncertainty of return of investments (ROI), makes a lot of corporations be skeptical of M&As.

b. Blockchain

Blockchain technology is emerging as a business focus for organizations in several industries, including consumer products, manufacturing, financial services, healthcare, life sciences, and the public sector. Termed “The Internet of Value,” blockchain asserts trust, immutability, transparency, and security along with time and cost efficiencies.

Blockchain, in many ways, appears to signify the dawn of a new era as it relates to the way we store and exchange value. In fact, it can be considered one of the biggest technological breakthroughs in recent history, similar to the advent of the internet in the early 1990s. At that time, the internet provided a new and a much more sophisticated way to search and share information, in a way that was much more efficient and transparent (Insights., 2018) Today, blockchain presents a similar value proposition and provides a way to transact in a much secure, immutable, transparent, and auditable way (Christidis, K., & Devetsikiotis, 2016). However, the understanding of the technology varies widely in terms of its potential and applicability.

A blockchain is a digital and distributed ledger of transactions, recorded and replicated in real time across a network of computers or nodes (Peer-to-peer). Every transaction must be cryptographically validated via a consensus mechanism executed by the nodes before being permanently added as a new “block” at the end of the “chain.” There is no need for a central authority to provide approval for the transaction, which is why blockchain is sometimes referred to as a peer-to-peer trustless mechanism (Piscini, E., Hyman, G., & Henry, 2017).

Blockchains are tamper evident and tamper resistant digital ledgers implemented in a decentralized fashion (i.e., without a central repository) and usually without a central authority (i.e., a bank, company, or government). At their basic level, they enable a community of users to record transactions in a shared ledger within that...
community, such that under normal operation of the blockchain network no transaction can be changed once published (Narayanan et al., 2016). In 2008, the blockchain idea was combined with several other technologies and computing concepts to create modern cryptocurrencies: electronic cash protected through cryptographic mechanisms instead of a central repository or authority. The first such blockchain based cryptocurrency was Bitcoin (Nakamoto, 2008).

Within the Bitcoin blockchain, information representing electronic cash is attached to a digital address. Bitcoin users can digitally sign and transfer rights to that information to another user and the Bitcoin blockchain records this transfer publicly, allowing all participants of the network to independently verify the validity of the transactions. The Bitcoin blockchain is stored, maintained, and collaboratively managed by a distributed group of participants. This, along with certain cryptographic mechanisms, makes the blockchain resilient to attempts to alter the ledger later (modifying blocks or forging transactions) (Yaga, D., Mell, P., Roby, N., & Scarfone, 2018).

Organizations considering implementing blockchain technology need to understand fundamental aspects of the technology. For example, what happens when an organization implements a blockchain network and then decides they need to make modifications to the data stored? When using a database, modifying the actual data can be accomplished through a database query and update. Organizations must understand that while changes to the actual blockchain data may be difficult, applications using the blockchain as a data layer work around this by treating later blocks and transactions as updates or modifications to earlier blocks and transactions. This software abstraction allows for modifications to working data, while providing a full history of changes. Another critical aspect of blockchain technology is how the participants agree that a transaction is valid. This is called “reaching consensus”, and there are many models for doing so, each with positives and negatives for particular business cases. It is important to understand that a blockchain is just one part of a solution.

Blockchain implementations are often designed with a specific purpose or function. Example functions include cryptocurrencies, smart contracts (software deployed on the blockchain and executed by computers running that blockchain), and distributed ledger systems between businesses. There has been a constant stream of developments in the field of blockchain technology, with new platforms being announced constantly – the landscape is continuously changing.

III. DISCUSSION

A. Legacy Mergers & Acquisitions

Mergers and Acquisitions (M&A) has been a long-standing strategy in the business landscape. M&As are usually devised to foster company progress by efficient mitigation of losses and optimization of corporate resources. In business economics, M&A can serve as a viable solution for companies facing adverse financial situations. The primary reason for an M&A is to achieve synergy by integrating two or more business units in a combination with an increased competitive advantage (Porter, 1985), whereas the secondary and tertiary reasons are materialism and hubris.

M&As are a common managerial strategy, whether used by firms to enter new markets, subdue a rival, or acquire valued resources such as technology, locations, or people. Scholarly research on M&A abounds, not only from within the strategic management area – which tends to justify M&A in terms of synergies and competitive advantage – but also from the financial management area – which has an interest in risk-reducing portfolio effects. While on the one hand M&A continue to be a popular corporate strategy (Gopinath, 2003) on the other hand there is unrelenting evidence that M&A failure rates are high.

According to the Accenture and the Economist Intelligence Unit global M&A survey of 2006, present-day corporate strategy is focused firmly on M&As as a tool for promoting future growth and creating sustainable value. As a result, companies are aggressively seeking and buying compatible and synergistic businesses to bolster core strengths, and shedding noncore operations. Many companies, however, still fail to capture the much anticipated added value from M&A deals. When asked to draw on their recent experience to pinpoint the critical elements of a successful crossborder M&A transaction, respondents most often cited “orchestrating and executing the integration process” (47% of respondents), conducting due diligence (43%), and energizing the organization and understanding cultural issues (40%). The same factors were generally regarded as key to successful domestic transactions as well, although in cross-border deals the emphasis on cultural differences and various postacquisition integration approaches is naturally greater (Calipha, R., Tarba, S., & Brock, 2010).

To understand better what the various component parts, phases, or stages of M&A might be, prior research in the area and found various approaches from two to seven phases. For example, (Boland, 1970) divided the M&A process into two phases: premerger and postmerger. (Lubatkin, M., Schweiger, D., & Weber, 1999) divided the process into premerger and implementation. (Calipha, R., Tarba, S., & Brock, 2010) divided the
process into three phases: premerger, merger, and postmerger. (Goodchild, M. F., Anselin, L., Appelbaum, R. P., & Harthorn, 2000) also structured the process into three phases: premerger, during, and postmerger. Yet according to Goodchild, M. F., Anselin, L., Appelbaum, R. P., & Harthorn (2000) there are four phases to a merger: idea, justification (including due diligence and negotiation), acquisition integration, and results appraisal, whereas (Fery et al., 1969) agree on that there are four phases, contributing the following colorful names and definitions (Calipha, R., Tarba, S., & Brock, 2010):

1. The Courtship: This phase is the time – when possible – to familiarize the management of the acquired company with the advantages to both companies of the proposed marriage and how you envision these advantages to be brought about. Management philosophies, company policies, objectives, and strategies of both companies should be discussed.

2. The Marriage Ceremony: This second phase of the merger is primarily a legal step. All of the key management are brought together, so the top officers of the acquired company can announce the marriage and the reasons for it. An announcement directed to the employees of both companies is made at the same time as the public release of information. Just like real-life marriages, this phase is the most time-consuming and the most elaborate part. However, unlike real-life marriages which takes about just a day or two to complete, M&As take months to even years to finalize. Explained by the researchers in this following six stages:
   a. Declaration of Intent: The backbone of the process. Frequently, a buyer will present the seller with a non-binding letter of intent or a term sheet that lacks details about the key terms of the transaction. If the buyer is a company of a certain volume or one that has experience in acquiring other companies, it will give the impression to the seller that these preliminary documents are rather an internal formality of their process and, therefore must be signed quickly so that the buyer can move on without delay to the “most important” stages of the acquisition process (such as due diligence and the negotiation of final acquisition documents).
   b. Agreement: Normally, the process takes between 4 to 6 months. The period will depend on the urgency of the buyer to carry out Due Diligence and complete the transaction, and whether the selling company is able to complete the competitive process of selling a company, whilst generating interest from multiple companies. The process of a merger or acquisition involves much more than agreeing on a price. There are several hundred aspects to negotiate. And if one party refuses to agree on a price or sell their company, they won’t be able to buy someone else’s company. It is not about charging fees. This is simply business.
   c. Signing: After terms are agreed, it’s time to formally legalize the transaction (i.e., change of ownership equities) via a public notary as a legitimate third party.
   d. Settlement: Agreed upon funds will be transferred through an intermediary (i.e., investment banking), to fulfill the rights and obligations of the parties involved.
   e. Closing: Verification of contractual provisions from the agreement. Usually involves hiring professional attorneys, auditors, consultants from top firms to make sure all the provisions are fulfilled.
   f. Post-Transaction: Before moving on to integration, most often an M&A deal involves a certain quantifiable target to be achieved as a part of the agreement. This requires another professional services to make sure that the payouts are met without any negative impacts for any parties involved.

3. The honeymoon: The deal is made and the ‘real’ management and personnel integration begins. Two-way communication is the major objective during the honeymoon period.

4. After the honeymoon: This is the ‘integration’ phase – the ribbon has been tied around the two companies, the philosophical infusion has started to take effect.

For the sake of a colorful explanation, the researcher will further elaborate on the above written explanation regarding M&A deals.

Carrying out mergers and acquisitions are difficult. There is the initial negotiation, followed by all the legal wrangling that can take months. Ultimately, the whole process leaves a bitter taste in the mouth of everyone involved due to the concessions both sides must make to get a deal through. It takes too long, it’s expensive and it occurs in such a way that everyone is left feeling distraught over some of the terms that end up being agreed. The adage of attorneys, consultants, or accountants being the true winners is undoubtedly true in this instance. However, the researcher argues that in a few years, that environment will most likely change due to the advances of our technological innovations.

The elimination of an unnecessary volume of intermediaries at the center of these exchanges simplifies things tremendously. It eradicates any conflict of interest which has been increasingly apparent—professionals elongating or increasing the complexity of their services in order to expand the fees they are due. It simplifies and streamlines the process, potentially making mergers and acquisitions as simple as any transaction on an e-
commerce platform right now, only the blockchain ensures certain procedures are fulfilled. Fewer intermediaries = less disputes & lesser expenditure, leaving behind only secured, transparent, and immutable facts recorded for all to see.

B. Blockchain Mergers & Acquisitions.

Blockchain M&A is a relatively new term and concept — making it quite hard to define. This is mainly because the term is commonly associated with legacy M&A, which has been already defined in the business industry. However, in the world of cryptocurrency and blockchain, the term can mean differently. Blockchain is a new database technology that promises unprecedented efficiency and seems propelled to make M&A negotiations and due diligence faster, more accurate, and cheaper. The impact of these benefits makes a spur for a major interest in the M&A space.

According to Inwara (2019) a blockchain intelligence platform, crypto-and blockchain-related M&A events only started to surface around the year 2016. Yet progressively, the concept slowly grew over the years and has peaked last year in 2018. Based on Inwara’s data, there were an estimated 111 M&A blockchain industry deals signed worldwide in the same year of 2018.

Special digital M&A tools can help facilitate M&A tasks from target screening and due diligence to contract drafting and integration. In 2018 more than 60% of managers involved in corporate development activities are using digital M&A technologies other than spreadsheets. They are convinced that the use of specific technologies can increase efficiency, save time and reduce costs. Moreover 23% of managers are planning to use M&A technology tools in the future (Freiland, D., Middelhoff, D., & Waßmann, 2019).

Common M&A tools are platforms offering target searching, tendering, negotiation management and virtual data rooms to sellers and potential buyers. In addition, there are also M&A management tools that structure workflows, aggregate work plans and monitor transaction risks as part of the transaction. In this particular regard, the tool in question is called a “smart contract.”

Smart Contracts in general are written as lines of software code in which the terms of the agreement between buyer and seller are defined. The code and the agreements exist across a distributed Blockchain network. Due to the distribution in the network Smart Contracts enable trusted transactions between different parties without the need for a central authority or legal system. Intelligent contracts are able to make transactions traceable more transparent and certainly irreversible. The Ethereum Blockchain (Buterin, 2015) buy is considered to be the smart contract pioneer.

Smart contracts can be used wherever transactions need to be documented transparently, securely, automatically and unalterably. Blockchain applications include digital identities, payment transactions, financial products, marriages, real estate transactions, insurance and many more. For example, an intelligent motor vehicle insurance contract allows insurance premiums to adapt to the behavior of the insured person in road traffic. For example, if a person violates road traffic regulations and ignores speed limits, the monthly premium increases in real time. This is just one example which shows that the smart contract can establish mutual trust between two parties.

If the contract is correctly programmed, the parties benefit from a high degree of reliability, as interpretation difficulties or the loss of the document are virtually ruled out. In addition, a high level of security is guaranteed, since a blockchain uses a cryptographic encryption process that offers a high level of protection against hackers. Furthermore, the programming of a smart contract is more efficient than bureaucratic processing. Another characteristic is the independence of third parties, such as lawyers, notaries, consultants, or investment bankers.

As of our current state, due diligence is one of the more expensive and time-consuming phases of an M&A deal. But by shifting due diligence documentation to blockchain-based smart contracts, financial and legal advisors wouldn’t have to spend as much time poring over records. However, Legal enforceability of smart contracts is limited. Work is being done (De Filippi, P., & Hassan, 2016) to make the technical rules of smart contracts legally enforceable and binding to all parties. Until then, what happens if, despite the verifiability of the whole process, a transacting entity disputes the outcome of a smart contract operation? A way to increase the chances of legal enforceability is to include a reference to the actual real-world contract in the smart contract, and vice versa. This is a process called “dual integration” and it works as follows (Christidis, K., & Devetsikiotis, 2016):

a. Deploy the smart contract in question, record its address on the blockchain, and include that address in the real contract;

b. Hash the corresponding real-world contract, record its hash digest, store the real contract in a safe space (can be centralized, or decentralized;
c. (Freiland, D., Middelhoff, D., & Waßmann, 2019) Send a transaction to the smart contract that includes the real contract’s hash in its metadata, the contract then stores that piece of information in its own, internal database.

In case of a legal dispute, you can point to the hash stored in the smart contract, then present the real-world contract (that is uniquely identified by that hash) and prove the link between the actions on the blockchain and the expected outcome in the physical world.

The implementation of smart contracts can improve the aforementioned six stages of an M&A transaction as described below (Freiland, D., Middelhoff, D., & Waßmann, 2019):

1. Declaration of Intent: Smart contracts can be used to verify interested parties and guarantee traceability as early as the declaration of intent. As part of the preparatory phase, a declaration of intent in form of a non-disclosure agreement (NDA), a letter of intent (LOI) or a term sheet is usually signed by interested buyers, facilitated by the smart contract.

2. Agreement: Contracts are built on a standardized basis and adapted individually in the course of the process. The complex and regularly time- and cost-intensive process of negotiating M&A contracts could be decisively streamlined by means of a constant exchange of mutual “markups” of the draft contract and the execution of the contract.

3. Signing: Signing usually involves the notarization of the company purchase agreement. In this phase of the M&A process, the notary as a third party has the responsibility to check the identity and legal capacity of the parties involved and to inform them of their rights and obligations. The Blockchain network is known to be transparent, secure, unchangeable and tamper-proof and is therefore ideally suited to replace a public notary.

4. Settlement: During this settlement phase, the purchaser transfers the purchase price and the seller transfers the object of contract. Financial transactions realized via blockchain technology can be executed within seconds and without any classical financial intermediary. The payment and the asset-/share transfer can be automated by the smart contract so that mutual trust is ensured between both parties.

5. Closing: The verification of the contractual principles can be carried out in an automated process by means of blockchain automation. Smart contracts can be developed as automate transactions, triggered if certain obligations and conditions are met. Smart contracts can also reduce risks and enable dealmakers to enter into agreements with a higher level of comfort, independently if the parties have ever met or even trust each other.

6. Post-Transaction: Smart Contracts can generate intelligent payments. Based on the earn-out provisions, smart contract payments can be automated. This allows automatic payments to be triggered as soon as, for example, a certain quantifiable target is reached. In the post-closing phase, Service Level Agreements (SLA’s) or Transition Service Agreements (TSA’s) apply in many cases. In this phase, smart contracts ensure that all conditions determined in the contract are met automatically and certain items might not be explicitly formulated because they are being overruled by the smart contract.

Thus, comprehensively simplifying the entire M&A process through a documented automation & ensuring mutual trust between all parties involved in the deal.

One of many reasons why so little blockchain-based M&A transactions was initiated is that such process is a huge kick in the groin. When companies opt to a merger or an acquisition, they agree to handle the legal challenges and financial roadblocks that comes along with it.

Merging and acquiring requires huge capital investments, and companies, while not yet obtaining anything, already have to spend money on legal support, and consultancy fees. At the end of the day, no one comes happy from the process, no matter how you try settling all the differences. M&As are always risky. Long-lasting negotiations, delays in obtaining the patent or other Intellectual Properties, documentation errors — these are just a few of many hurdles that companies have to overcome in the process. Moreover, they have no guarantee for merger or an acquisition to be successful.

Decentralized platforms could be an answer that business owners were looking for. The annoying paper documentation can be replaced by smart contracts which will allow business owners to pay for certain actions and results, not for a sales pitch. It minimizes the risk of speculating the fake data about the amount of performed sales or market share since algorithms will check it.

Tokenization allows to quickly make and receive payments without losing commision money. More importantly, the decentralized nature of blockchain protects the intellectual property. By cutting off the mediation of the third party, blockchain doesn’t require its users to store information on a centralized server, minimizing the risk of possible data breaches. Shareholders and Board of Directors have the full control over all the shared information.
IV. CONCLUSION

It’s evident that mergers and acquisitions are definitely going to become an essential part of the blockchain landscape. Big companies and startups will unite their forces to develop new innovations, which is a positive news for the rest of us. However, even blockchain-based acquisition yet have a long way to go. But evidently from the above discussion, one thing is clear: Blockchain needs M&A, and M&As need blockchain. Perhaps not now, but in time, surely.

In the blockchain framework, we can witness that small start-up enterprises constantly develop new unused solutions. Big companies, on the other hand, are yet on the sidewalks of the technology, desperately trying to catch up with faster companies. We enter a problematic impasse: big companies who hold the resources, lack the agility needed to push the technology to the next level, and startup, disregarding their ambition, don’t always have the resources to further develop the concept they already created.

When we examine any of the currently disruptive technologies, we surely noticed that no matter how active startups are, it’s the big tech companies that really pushes the innovation forward. Usually, the process goes like this:

Startup develops a concept from an innovation — gets popular/viral at some point — wants to scale but lacks definitive resources — gets merged or acquired by a much bigger company — the said innovation, developed by a startup, either greatly develops or fades away into oblivion (if the M&A transaction did not result in a viable return-on-investment).

In the last 5–10 years, we’ve seen Google, Apple, Amazon, Facebook and other tech giants investing in almost every disruptive technology there is to be found: Artificial Intelligence, Cloud Storage, Big Data Analytics, Internet of Things (IoT)... except for blockchain. Why have big enterprises underestimated blockchain? Certainly, they see both technological and financial value of the innovation and yet don’t bother much to say the first word on the market. The answer lies in the decentralized nature of blockchain. Since its main pillars are privacy and anonymity, giant IT enterprises whose bread and butter are data mining and selling ads, considering this knowledge, understand that blockchain opposes the centralized nature of their business models.

As for now, startups are very much ahead of tech giants, making deals and creating partnership seems a logical move both for big enterprises that need to catch up and take the leading positions on the market and for startups that are happy to sell their disruptive blockchain innovations. However, No matter how on-fire a startup is, big companies are yet better equipped to implement innovative concepts, both from technical and PR-perspective. In the blockchain world, a startup can develop an interesting innovation and even attract big clients but due to dismal communication strategies, nobody knows about it. Instead of potentially becoming an international asset, the innovation is preserved within one small company before yet another one bites the dust.

Of course, this lack of technical and communication resources doesn’t influence blockchain positively. Big companies who have all the possibility to execute innovation, stay in the sidelines, and startups just can’t handle scaling. Hence why M&A might indeed shed some light to the tunnel. Allowing big companies and ambitious startups to unite their resources towards blockchain innovation, they will push technology forward, while also tremendously scaling the market. After all, in this world full of cruel intentions, those who own capitals are the ones who shall prevail.
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