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The Impacts of Advanced Technologies on Business Negotiations

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ABSTRACT
The progress of technologies has been changing multiple business practices, without the exception of business negotiation. In this article, three advanced technologies, including big data, blockchain and cryptocurrency, are focused on discussing how they can influence the strategic negotiation process. It is found that big data would be beneficial for analyzing the profile of the counterpart of the negotiation, that blockchain can contribute to both collaboration and execution stage of negotiation, and that cryptocurrency would enhance the transaction efficiency and credibility. While these technologies simultaneously have challenges and defects, they have greater potential to engender positive impacts on business and negotiation practices. The study results would help nowadays business negotiators acquire more knowledge about applying advanced technologies in business negotiation.

Keywords: *Business negotiation, Big data, Blockchain, Cryptocurrency, Technology.*

1. INTRODUCTION

Business negotiators are increasingly involved in the negotiation practices in the field that many of them do not understand very much: advanced technologies. No matter they are performing the information collected before the negotiation, making transactions through the internet and conducting analytics for the counterpart during the negotiation, or performing reflections after the negotiation, advanced technology would play essential roles in determining the ultimate result of the negotiations [1].

In the context of the technology era, business negotiators may face different types of challenges. Complexity is the foremost aspect of the challenge, as negotiations over new technology need a comparatively high level of expertise in hardware or software that most managers lack [1]. Most business negotiators may not have ample experiences to handle those advanced technologies [2].

When it comes to those very sophisticated systems, no one can guarantee that they will function as expected when configured for a specific business context. As a possible scenario, different projections about a technology's performance might lead to a bargaining war. All in all, new technologies can sometimes become a double-edged sword for a negotiation [2].

With a special focus on big data, blockchain and cryptocurrency, this article attempts to review their influences on the business negotiation practices concerning their advantages, challenges and future application scenarios.

2. BIG DATA AND BUSINESS NEGOTIATION

We live in a world where people are producing data at ever-increasing rates. Businesses of all sizes can use analytics techniques to understand their customers and identify trends to promote business negotiation. This type of technique is named big data.

Simply put, big data can be defined as larger, more complex data sets, especially from new data sources [2]. It is a combination of all the processes and tools related to utilizing and managing large data sets. These data sets are so voluminous that traditional data processing software just cannot manage them. But these massive volumes of data can be used to address business problems that people would not have been able to tackle before [3].

In terms of the effect of big data on business negotiation, a case that happened in June 2004 can demonstrate its magical function. At that moment, Walmart ordered eight companies to purchase electric scooters. Walmart asked them to fill in the price list of each part for their reference. Every company wanted Walmart and they took the initiative to cut prices. The price and profit have been reduced to the lowest point.

However, at that time, Walmart suddenly changed its mind, the entire order broke down which is only for enterprises to report breakeven or loss orders. The first one to give up was a famous company called Shenmao. A general manager of the firm said "The fight with Walmart this time revealed the background of the industry and the enterprise. People know the cost of every part of our products like the palm of their hands, and they have the initiative to negotiate business."

So why can Walmart occupy a favorable position in the negotiation? Many people impulsively understand that Chinese enterprises are killing each other, but they do not know that the real reason for supporting Walmart to take the initiative lies in its huge database support and efficient negotiation strategy based on data analysis.

Therefore, from the case discussed above, it can be seen that big data is a new competitive advantage for businesses to obtain more negotiation power. Using big data has been crucial for many leading companies to outperform the competition. In many industries, new entrants and established competitors use data-driven strategies to compete, capture and innovate. In fact, it can be found that examples of big data usage in almost every sector, from IT to healthcare.

To be more specific, the merits of big data can be mainly divided into the following three Vs of data, which all form cornerstones of big data industries and have a positive effect on business negotiations [4].

Volume. As you might expect, this refers to the amount of data that needs to be processed. It is common that there are always numberless data posted online that people can search for easily. With the huge volume of big data, business organizations can use analytics, and figure out the most valuable customers to negotiate and begin their contract. It can also help businesses create new experiences, services, and products.

Velocity. This refers to the speed at which the data is received. Some sources, for example, deliver data in real-time or close to it, meaning it takes less time to look for and transfer the message. Therefore, negotiators can be offered much convenience finding data in time or even in advance and avoid assuming time along with efforts with the help of big data.

Variety. This term means how many different types of data are available. As known, there is always a range of data in the database, and it can be a mix of things like text, audio, and video as well. As a result, it is more likely to meet different negotiators' requirements and their goals.

While big data holds a lot of benefits, it is not without its challenges. First, big data is too big. Although new technologies have been developed for data storage, data volumes are doubling in size about every two years. Sometimes, too much data may make negotiators' brain messy and distracted when searching their target information.

Second, it is not easy enough to just store or organize the data. Data must be used to be valuable and that depends on curation. Clean data, or data that is relevant to the client and arranged in a way that enables meaningful analysis and requires a lot of work [4]. There is often unstructured data, meaning it is not organized in a pre-defined way, so it takes plenty of time to deal with various data and select useful information [4].

Finally, big data technology is changing at a rapid pace. Keeping up with big data technology is an ongoing challenge for business negotiations. Whilst nowadays many negotiators still struggle to keep pace with their data and find ways to store it effectively, big data is undoubtedly the future trend for negotiators to perform analysis before any negotiation case.

3. BLOCKCHAIN AND BUSINESS NEGOTIATION

Before people can understand the impact of blockchain on business and negotiations, it is necessary to have a preliminary understanding of what blockchain is. Blockchain stores data in blocks and then chains those blocks together, and as new data comes in, it is stored into a new block [5].

Therefore, what can blockchains help us achieve? As it is known, blockchains are digital ledgers in which several people share control over shared information. When two parties negotiate, a large amount of information is subsequently transferred [6]. Each party keeps its records and tends to communicate with one partner at a time, leading to inconsistent knowledge between participants and even falsification of documents or products. Disputes between companies are likely to occur and can evolve into prolonged bickering.

Consequently, blockchains offer business negotiators more opportunities to make collaboration solutions: they enable even quasi-automatic execution of very complex transactions. Blockchain leaves no room for dispute or opportunity bargaining, thus saving time and hassle [7].

Collaboration is at the heart of how business negotiation works. However, successful collaboration is not easy. Your partner may lack commitment - they may even lie, steal or cheat. Your partner may also try to cover up quality defects, or a customer may ask to renegotiate the price, even though they initially agreed to it. Communication, information sharing, and coordinating actions among multiple parties can be difficult. In addition, it is challenging to ensure that the information recorded by different entities is consistent.

These problems are exacerbated by the ongoing pandemic that is accelerating the shift to online work. To enable collaboration, companies need to ensure that parties act as agreed and activities are well coordinated, but the legal contracts and social mechanisms that people use to achieve these ends are difficult to apply through the virtual communication layer we now rely on [8]. However, there is one tool that could fundamentally change the way collaboration is done: the blockchain.

There is a necessity to have a good choice of partners. Every collaboration starts with choosing the right partner, and blockchain can significantly simplify this step [8]. Traditionally, companies have relied on credibility clues from their experience with potential partners or their public reputation. However, prior experience does not always exist, and public reputation is sometimes untraceable, especially for smaller companies.

With blockchain sharing the same information to all parties, information about all types of companies will be available online as a reference, making it less likely for some companies to profit through illegal means. There is also a deterrent effect - knowing that there will be little room for evasion or betrayal, dishonest or incompetent partners will avoid joining agreements backed by the blockchain [8].

While the negotiation phase has always been at the heart of collaboration, it becomes even more critical when using blockchain. Because blockchain protocols are not easily changed once they are in place. The specific protocols that form the blockchain infrastructure need to be defined in advance [7]. A blockchain setup is now a collective task involving multiple participants in the blockchain network rather than the traditional two-party interaction. Thus, Blockchain is expected to contribute to the collaboration phase of negotiation greatly.

Additionally, blockchain could also be conducive to the execution of business negotiations. A significant benefit of using blockchain in the execution phase is the automated execution of protocols and the resulting reduction in dishonest behavior. In addition, blockchain speeds up the process and reduces settlement costs by providing a single truth for all participants [8]. Blockchain also allows information to be confirmed in real-time rather than after the fact. Finally, Blockchain allows collaborators to be more sensitive during the execution phase.

4. CRYPTOCURRENCY AND BUSINESS NEGOTIATION

The third technology included in this review would be cryptocurrency. This section would introduce what cryptocurrency is, followed by the benefits of cryptocurrency for negotiation and the possible problems with cryptocurrency.

A cryptocurrency is a digital or virtual currency that is secured by cryptography [9]. It is widely acknowledged that negotiations involve money transactions; therefore, cryptocurrency can be used to replace any financial transactions. This payment method by using cryptocurrency is massive, including both direct and indirect benefits.

First of all, one of the benefits of cryptocurrency is instant payment [10]. Its meaning can be divided into two parts. The first meaning is that cryptocurrency has no requirement for banks anymore. As we know, banks usually, as third parties, are more needed if we use currency, but because the principles of the cryptocurrency blockchain technology are in decentralization, the individuals have full control over their money with no need for it the third party.

The second meaning is that the cryptocurrency can be seen as a digital e-cash [10]. Cryptocurrency makes online shopping possible in a very easy way which increases the speed of transactions. Unlike e-banking, you do not need to wait for several working days for the money to process. The transaction happens in few minutes. This advantage of the cryptocurrency improves the efficiency of transactions in negotiations and reduces the cumbersome handling of our transactions with ordinary money.

Secondly, the benefit of cryptocurrency is cheap transaction fees. [11] There are often abundant fees when conducting transactions with a financial institution like commercial banks. This is another reason to say that cryptocurrency will work better than the traditional system. In the world of crypto, we can essentially cut out the intermediaries, and thus, we can save our money on those additional fees.

Furthermore, cryptocurrency even has low transaction costs compared to other digital payment methods like PayPal [11]. In addition to this, you would also be able to make various international payments without relatively high fees because it is essentially the same process. In other words, if the two sides of our negotiation are from different countries, then we can use the advantage of virtual currency to reduce the exchange rate and procedure costs of both sides.

However, there is no denying that cryptocurrency also has some dangers. The major danger of cryptocurrency is that the currency has comparatively low transparency and security [10]. Since most people are missing a lot of information and incomprehensible parts of Bitcoin transactions, the government is unable to use rules to control Bitcoin transactions like taxes. So, this has also resulted in the fact that there may be no government control in Bitcoin transactions at all, which greatly increases the crime rate. Just like a hacker's attack, it may cause a lot of people's private information to be left out, causing unnecessary losses. This is a bad result for both parties in the negotiation.

Hence, many people may struggle with their thoughts at such times. They will be very confused about whether they should use cryptocurrency in negotiations [12]. While, it can be argued that a cryptocurrency is a tool of the future, and there may be some risks in using it in negotiations currently [12]. But as a future tool, perhaps its problems will be solved as technology keeps evolving.

5. CONCLUSION

To sum up, the above sections review how big data, blockchain technology, and cryptocurrency would contribute to the business negotiation process. The functions of these technologies can be manifested in line with the negotiation process. More specifically, during the negotiation preparation phase, big data can be a powerful tool to conduct analytics; during the conduction phase, blockchain technology can seek collaboration and promote mutual trust. Finally, the cryptocurrency would have relatively higher transaction speed and low transaction costs in the transaction phase.

Human beings are fickle and complex species, and we will make mistakes sometimes in our life. In contrast, these aforementioned technologies are kinds of trustworthy intelligent devices that cannot be tampered with. In other words, we may worry about breaking the rules to fabricate, but we will not worry about the technology deceiving the public. For the use of these technologies, various enterprises and cooperation in the future will be full of more trust, and it is convenient for us to cooperate with other companies. Comparatively, these technologies may become their ultimatums for companies that use some tricks to gain profits.

All in all, while there are still certain risks, business negotiators should pay more attention to the trial and apply those technologies in their real practices and future workplace, given their tremendous advantages. In this way, more competitive advantages and bargaining power can be obtained by those business negotiators who are empowered by technologies.

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