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Blockchains and Triple-Entry Accounting for B2B Business Models: Open Review

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Reviewers: Reviewer A, Reviewer B

Abstract. The final version of the paper "Blockchains and Triple-Entry Accounting for B2B Business Models" can be found in Ledger Vol. 8 (2023) 37-57, DOI 10.5195/LEDGER.2023.288. There were two reviewers involved in the review process, neither of whom has requested to waive their anonymity at present, and are thus listed as Reviewers A and B. After initial review by Reviewers A and B, the submission was returned to the authors with feedback for revision (1A). The authors resubmitted their work and responded to reviewer comments (1B), after which the resubmission was deemed sufficient to address any prior concerns, thus ending the peer review process. Author responses in 1B have been bulleted for reader clarity.

1A. Review

Reviewer A

Does this paper represent a useful reference or tool for academic or industry researchers of cryptocurrency and/or blockchain scholarship?

No

Please briefly explain why you think the paper would or would not be useful to researchers.

The paper would not be useful to researchers. Through the survey, the paper needs to fill the literature gap on blockchain and triple-entry accounting for B2B Transactions. Instead, the paper provides a summary of the literature related to the history of TEA, potential benefits of TEA over DEA, and TEA systems developed using blockchain has the potential to revolutionize accounting by providing a secure, decentralized ledger. These topics have been surveyed and reviewed by multiple authors in various papers.

[*] 1HS1e1aQvTCWiRWiCyedF5hpAcj4GhzaXQ

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Is the submission's coverage of the topic comprehensive and up to date?

Irrelevent/spurious references are included

If only a few important references are missing, please indicate which references are missing. If the coverage is lacking in a broader way, please explain.

I think the coverage is missing in a broader way. This study reviews the adaptation of Blockchain and TEA in AIS for B2B transactions. However, there needs to be more emphasis on considering B2B transactions in the background study and the related work.

Background work provides a good overview of Accounting methods and Blockchain. However, the description of AIS and ERPs is separate from the survey context. And background related to B2B Transactions needs to be included.

The author has cited relevant papers regarding the topic. However, the summary of the papers needs to extract the critical idea or the exact contribution. Therefore, the summary is generic and does not highlight the advantages and limitations.

I also believe that papers reviewed in related work need to be ordered better, and the author bounces around various associated topics. As a result, it is hard for the reader to get the flow of the paper.

Additionally, the survey paper needs to provide new insight, and there are many papers on this topic.

Note: Specific details are provided in the next section.

Please assess the article's level of academic rigor.

Unsatisfactory (better than poor but a long way from excellent)

Please assess the article's quality of presentation.

Unsatisfactory (better than poor but a long way from excellent)

How does the quality of this review compare to other reviews in this field?

The review has some value but it can easily be replaced by better scholarship in the field.

Please provide your free-form review for the author in this section.

##Strengths -
- Abstract and Introduction are relevant and well-written
- The author has cited relevant papers regarding the topic
- The formatting of the paper is excellent.
- Language used in the paper is of a high standard

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##Weakness -
Please refer to the section the coverage is lacking in a broader way.

#Improvements in free form
2. Background
Please include details about B2B transactions.

3. Related Work
Since your survey paper focuses on adapting Blockchain and TEA for B2B transactions, I believe it's essential to consider the related work on B2B transactions as a separate section.

Ref 6
This is a relevant paper on the topic, however, the key idea needs to be captured better.
- The author introduces a framework using smart contracts for TES, which reduces the time required for the verification of accounting information.
- The author chooses 3 case studies to study the use of blockchain in AIS using TES. These case studies provide real-world examples addressing the transparency issues between parties, data privacy, and scalability concerns of using blockchain for TES.
Please incorporate these in the summary.

Ref 23
The author has provided a good overview of the challenges. Also the short-run and long-run benefits of using blockchain technology for auditing. Please incorporate these in summary.

Ref 24
Please provide a better overview of the trust model/framework defined by the author. Unclear use of abbreviations like HFL.

Ref 25
The author has provided a potential simplified triple-entry accounting information design. Please incorporate the author's intent in the summary.

Ref 27
For the most part, you have listed the author's ideas on how blockchain can break the fraud triangle. However, the author provides an overview of the fraud triangle and concludes the paper by referring to privacy issues that can be solved using zero-knowledge proofs. Please incorporate these in summary.

Ref 28
Your summary is very generic. The paper's exact contribution or key idea needs to be captured better.

Ref 30
This is another literature review. Your summary does not provide any valuable information to the reader. I suggest removing the reference to this paper.

Ref 31

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This is a relevant paper. It discusses the potential benefits of the integration of blockchain technology with ERP and AIS. The paper also highlights the challenges and limitations of integrating blockchain into ERP and AIS systems. Please incorporate the author's intent in the summary.

Ref 34 - the paper provides an insightful look into the relationship between REA accounting, triple-entry accounting, and blockchain technology and highlights the potential benefits of combining these concepts to create a new shared ledger system for financial accounting.

Ref 35 - In this paper author proposes a new accounting system called π Account, which is based on TES and utilizes blockchain for financial transactions. Please summarize the accounting system.

##Discussion
Please include discussions of
- Need for more trust in the B2B business model due to the limitations of DEA.
- Advantages and limitations of using blockchain in AES.

Reviewer B

Does this paper represent a useful reference or tool for academic or industry researchers of cryptocurrency and/or blockchain scholarship?

Not sure

Please briefly explain why you think the paper would or would not be useful to researchers.

Paper is too short.

Is the submission's coverage of the topic comprehensive and up to date?

Yes

Please assess the article's level of academic rigor.

Good (not excellent but a long way from poor)

Please assess the article's quality of presentation.

Good (not excellent but a long way from poor)

How does the quality of this review compare to other reviews in this field?

This is a good or average review.

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Please provide your free-form review for the author in this section.

The paper is about blockchain and triple entry accounting system and is well written. All sections of the papers are explained in a professional way and cover updated information on the topic. Language is good, professional and free from grammatical errors.

My only concern is about the length of the paper because a review or survey article must have adequate information and this article lacking on this issue. A chance must be given to the authors for their efforts, therefore, I recommend to revise and resubmit the paper.

1B. Author Response

Reviewer A

Does this paper represent a useful reference or tool for academic or industry researchers of cryptocurrency and/or blockchain scholarship?

No

Please briefly explain why you think the paper would or would not be useful to researchers.

The paper would not be useful to researchers. Through the survey, the paper needs to fill the literature gap on blockchain and triple-entry accounting for B2B Transactions. Instead, the paper provides a summary of the literature related to the history of TEA, potential benefits of TEA over DEA, and TEA systems developed using blockchain has the potential to revolutionize accounting by providing a secure, decentralized ledger. These topics have been surveyed and reviewed by multiple authors in various papers.

Is the submission's coverage of the topic comprehensive and up to date?

Irrelevent/spurious references are included

- Thanks for the comments; in the original manuscript, we carefully selected references to include in the study; however, some new references have been added, and some have been removed.

If only a few important references are missing, please indicate which references are missing. If the coverage is lacking in a broader way, please explain.

I think the coverage is missing in a broader way. This study reviews the adaptation of Blockchain and TEA in AIS for B2B transactions. However, there needs to be more emphasis on considering B2B transactions in the background study and the related work.

- The comment is well taken, and we appreciate highlighting a lack in the paper. The B2B business model and related transactions have been added to the Study Background and the Literature Review.

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- Added in Background of the Study:

Business-to-Business (B2B) Model—Higher volumes, larger transaction sizes, and longer sales cycles than business-to-consumer transactions typically characterize B2B transactions. B2B sales often involve business negotiations and may require customized solutions to meet each customer's needs. B2B transactions play a critical role in the global economy, facilitating the exchange of goods, services, and information between businesses and driving economic growth and innovation. Due to the large volume of transactions and the huge number of sellers and buyers, trust-related issues remain critical in this type of business model. One of the primary trust issues is a lack of information, as every party needs to know enough about the other to feel comfortable entering into a transaction. One party may misrepresent their products or services, delivery times, pricing, and payment terms to gain an advantage over the other party. Failure to pay or late payment can damage trust between parties, especially if it happens repeatedly. Lack of communication between parties can lead to misunderstandings and mistrust, and fraudulent practices can't be ignored. Fig. 5 depicts a B2B business model between two parties, the buyer and the seller.

- Added In Literature Review:

Blockchain, Trust, and B2B Business—Blockchain-based technologies provide new methods of organizing information that enables complex sociotechnical systems to share information while ensuring the integrity of the information. However, the experience we have gained through Blockchain from cryptocurrency to B2B is quite challenging. Some of Blockchain's essential characteristics prevent upscaling to a global Blockchain- enabled information-sharing model in the B2B business model. The study raises scalability issues in Blockchain concerning B2B transactions and presents a case study of Global Trade Digitization (GTD) architecture. The authors say the Blockchain-based GTD was designed for sharing supply chain information globally. GTD, a Blockchain-enabled infrastructure that allows all parties in global supply chains to share data and documents in a trusted and secure manner, is the first large-scale global Blockchain-enabled infrastructure of its type.

MAERSK, the largest supply chain company, and IBM, an IT company, jointly developed GTD for the global- scale digitization of international trade.

Background work provides a good overview of Accounting methods and Blockchain. However, the description of AIS and ERPs is separate from the survey context. And background related to B2B Transactions needs to be included.

- An important improvement was indicated in the comment. We have removed AIS and ERP- related details from the revised submission; B2B transaction-related content has been added in the Background of the Study.

Business-to-Business (B2B) Model—Higher volumes, larger transaction sizes, and longer sales cycles than business-to-consumer transactions typically characterize B2B transactions. B2B sales often involve business negotiations and may require customized solutions to meet each customer's needs. B2B transactions play a critical role in the global economy, facilitating the

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The author has cited relevant papers regarding the topic. However, the summary of the papers needs to extract the critical idea or the exact contribution. Therefore, the summary is generic and does not highlight the advantages and limitations.

- We appreciate this comment for improving the quality and understanding of the paper. In the revised manuscript, every summary of the papers has been revised per the reviewers' directions and suggestions, and a table summarizing the reviewed literature has also been added.

- The literature included in the study is summarized in Table 1.

I also believe that papers reviewed in related work need to be ordered better, and the author bounces around various associated topics. As a result, it is hard for the reader to get the flow of the paper.

- The comment is highly appreciated, and the content in the literature review has been reordered in the revised manuscript and is grouped under sub-headings.

Additionally, the survey paper needs to provide new insight, and there are many papers on this topic.

- The comment is well taken. The theme, background, and related work in the revised manuscript have been revised exclusively. It presents a more comprehensive view of the topics, and the discussion part provides new survey insights.

Please assess the article's level of academic rigor.

Unsatisfactory (better than poor but a long way from excellent)

- Under the light of comments and suggestions, major revisions have been incorporated, and Blockchain, TEA, and B2B business models have been revised, discussed, and analyzed as per the reviewers' directions.

Please assess the article's quality of presentation.

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Unsatisfactory (better than poor but a long way from excellent)

- As directed, the paper structure has been revised completely in the revised manuscript

How does the quality of this review compare to other reviews in this field?

The review has some value but it can easily be replaced by better scholarship in the field.

- The manuscript has been revised in light of comments and suggestions and is significantly improved.

Please provide your free-form review for the author in this section.

Strengths -
Abstract and Introduction are relevant and well-written

- Revised a little bit, more aligned with the topics

The author has cited relevant papers regarding the topic

- Removed less relevant citations, added new ones

The formatting of the paper is excellent

- Tried to improve further

Language used in the paper is of a high standard

- Tried to maintain in revised manuscript

Weakness –

Please refer to the section the coverage is lacking in a broader way.

- We appreciate for letting us know about an important missing part. The details about the B2B business model, which were missing in the paper and as pointed out by the reviewers, has been added to the background of the study and in the literature review appropriately.

- Added in Background of the Study:

Business-to-Business (B2B) Model—Higher volumes, larger transaction sizes, and longer sales cycles than business-to-consumer transactions typically characterize B2B transactions. B2B sales often involve business negotiations and may require customized solutions to meet each customer's needs. B2B transactions play a critical role in the global economy, facilitating the exchange of goods, services, and information between businesses and driving economic

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growth and innovation. Due to the large volume of transactions and the huge number of sellers and buyers, trust-related issues remain critical in this type of business model. One of the primary trust issues is a lack of information, as every party needs to know enough about the other to feel comfortable entering into a transaction. One party may misrepresent their products or services, delivery times, pricing, and payment terms to gain an advantage over the other party. Failure to pay or late payment can damage trust between parties, especially if it happens repeatedly. Lack of communication between parties can lead to misunderstandings and mistrust, and fraudulent practices can't be ignored. Fig. 5 depicts a B2B business model between two parties, the buyer and the seller.

- Added In Literature Review:

Blockchain, Trust, and B2B Business—Blockchain-based technologies provide new methods of organizing information that enables complex sociotechnical systems to share information while ensuring the integrity of the information. However, the experience we have gained through Blockchain from cryptocurrency to B2B is quite challenging. Some of Blockchain's essential characteristics prevent upscaling to a global Blockchain- enabled information-sharing model in the B2B business model. The study raises scalability issues in Blockchain concerning B2B transactions and presents a case study of Global Trade Digitization (GTD) architecture. The authors say the Blockchain-based GTD was designed for sharing supply chain information globally. GTD, a Blockchain-enabled infrastructure that allows all parties in global supply chains to share data and documents in
a trusted and secure manner, is the first large-scale global Blockchain-enabled infrastructure of its type. MAERSK, the largest supply chain company, and IBM, an IT company, jointly developed GTD for the global- scale digitization of international trade.

Improvements in free form

Background

Please include details about B2B transactions.

- The comment is well taken, and some details about the B2B business model have been incorporated into the background of the study.

Business-to-Business (B2B) Model—Higher volumes, larger transaction sizes, and longer sales cycles than business-to-consumer transactions typically characterize B2B transactions. B2B sales often involve business negotiations and may require customized solutions to meet each customer's needs. B2B transactions play a critical role in the global economy, facilitating the exchange of goods, services, and information between businesses and driving economic growth and innovation. Due to the large volume of transactions and the huge number of sellers and buyers, trust-related issues remain critical in this type of business model. One of the primary trust issues is a lack of information, as every party needs to know enough about the other to feel comfortable entering into a transaction. One party may misrepresent their products or services, delivery times, pricing, and payment terms to gain an advantage over the other party. Failure to pay or late payment can damage trust between parties, especially if it happens repeatedly. Lack of communication between parties can lead to misunderstandings

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and mistrust, and fraudulent practices can't be ignored. Fig. 5 depicts a B2B business model between two parties, the buyer and the seller.

Related Work

Since your survey paper focuses on adapting Blockchain and TEA for B2B transactions, I believe it's essential to consider the related work on B2B transactions as a separate section.

- The suggestion is well taken, and a separate section has been added for the B2B business model in the literature review.

Blockchain, Trust, and B2B Business—Blockchain-based technologies provide new methods of organizing information that enables complex sociotechnical systems to share information while ensuring the integrity of the information.

Ref 6 (Revised Ref. # 26)
This is a relevant paper on the topic, however, the key idea needs to be captured better. The author introduces a framework using smart contracts for TES, which reduces the time required for the verification of accounting information.

- The comment is well taken, and the details of the smart contract and TEA model have been added in the summary of the study:

A TEA model using a smart contract is also discussed in the study, in which two parties settle terms and conditions and digitally sign a self-execution digital contract on the distributed ledger. Party A agrees to pay $100 to Party B for some services. They sign a contract on the distributed ledger. Once the services are delivered, both parties again sign a contract, and Party A pays $100 to Party B against the services.

The author chooses 3 case studies to study the use of blockchain in AIS using TES. These case studies provide real-world examples addressing the transparency issues between parties, data privacy, and scalability concerns of using blockchain for TES. Please incorporate these in the summary.

- The comment is highly appreciated, and information about three real-world Blockchan- based applications (Luca+, zkLedger, and PACIO) is added and discussed.

The author also presented a case study of three real-world TEA and Blockchain-based solutions (Luca+, zkLedger, and Pacio), and their respective technical issues was also discussed and the brief of the discussion is as under:

Ref 23 (Revised Ref. # 30)
The author has provided a good overview of the challenges. Also the short-run and long-run benefits of using blockchain technology for auditing. Please incorporate these in summary.

- We are thankful for the comment. The summary of the paper is revised and challenges, short-run and long-run advantages have been incorporated.

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The study also pointed out various challenges in the adaptability of Blockchain in financial accounting. The author insisted that an organization with a huge number of transactions is outfitted for implementing Blockchain for its need because of huge upfront cost, lack of technical information, and data transparency due to the public nature of Blockchain and 51% attack. It is also considered a big challenge. The author also highlighted some short-run and long-run benefits of the adoption of Blockchain, like transactions are fully transparent, accessible, perfectly traceable, and immutable, and cross-verification of information is quite easy at the time of uncertainty or before entering into a big business deal or before taking big decisions. Likewise, disclosure of information by investors and businesses may also be beneficial for increasing trust, and lowering the cost of trust are some long-run advantages.

Ref 24 (Revised Ref. # 41)
Please provide a better overview of the trust model/framework defined by the author. Unclear use of abbreviations like HFL.

- The comment is well taken, and thank letting us know about a mistake. The summary of the paper has been revised, and the HFL abbreviation has been replaced with Hyper Ledger Fabric.

The authors propose an end-to-end data trust framework that allows data owners to share their data and users to use it safely. The framework consists of two components: a trust model to analyze the quality of input data and security and traceability to control and manage data access. The proposed model was implemented successfully using Hyperledger Fabric and then evaluated, producing the desired results. In the study, Blockchain was tested and found to be a trusted technology to build and maintain a trustworthy relationship between the concerned parties.

Ref 25 (Revised Ref. # 32)
The author has provided a potential simplified triple-entry accounting information design. Please incorporate the author's intent in the summary.

- The suggestion is well taken, the paper's summary has been revised, and the proposed simplified TEA design has been incorporated in the summary.

The authors, in their study, proposed a simplified Blockchain-based Triple-Entry accounting and assurance ecosystem that uses TEA, operates independently, processes data, and generates financial reports. The authors stated that TEA is a relatively new approach for recording transactions that require a transaction processing authority to authorize the transaction. As a result, once a transaction is entered, it becomes immutable, and there is no chance of altering or deleting it. Additionally, the smart contract facilitates the fast completion of transactions and allows quick verification. In the proposed ecosystem, when a company purchases goods on credit, it records the transaction in its ERP system. It sends an accounting token to two Blockchain accounts, corresponding ERP accounts, for recording and tracking purposes. The Blockchain accounts act like a Bitcoin Wallet with a unique ID, complete details of previous transactions for that particular account, running account balance, and cryptographic key for transaction verification. The mechanism of recording the transactions is hierarchical. The company is at the top level, then the accounting equation or accounts grouping, assets,

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liabilities, and equity. All accounts correspond to the third level's respective balance sheet group items. The balance sheet equation can be validated using a smart contract. The assets are equal to liabilities and equity; if the equation is not balanced, it triggers an alert. As the credit purchases are an obligation for the payment to the suppliers, an obligation token generates and sent to the Blockchain to record this event. This token is for an automated confirmation that the token's value matches the account receivable balance in the supplier's books. The obligation token would be implemented through a smart contract and executed for payment once the agreed terms and conditions are realized, such as the payment due date.

Ref 27 (Revised Ref. # 34)
For the most part, you have listed the author's ideas on how blockchain can break the fraud triangle. However, the author provides an overview of the fraud triangle and concludes the paper by referring to privacy issues that can be solved using zero-knowledge proofs. Please incorporate these in summary.

- Thanks for the suggestion, the summary of the paper has been revised, and an overview of the proposed fraud triangle has been included.

The authors discussed the Fraud Triangle model as it has three key aspects, 1) motivation, 2) opportunity, and 3) rationalization, and they can easily be tackled with the help of the Blockchain-based fraud triangle model that is vital in fraud prevention. The author suggested the following considerations to break the fraud triangle:
(1) The motivation of fraud can be encountered with the help of decentralizing data instead of being available at a centralized place.
(2) Blockchain can minimize opportunities for fraud due to its append-only feature. This feature is very helpful in transaction tracking, and any alteration in data with the intention of fraud becomes impossible.
(3) Rationalization becomes impossible by automating the processes using smart contracts because human
involvement can be eliminated from processes and controls.
The author raised a valid concern about privacy in Blockchain-based applications due to the highly transparent nature of Blockchain. It is further suggested that with the help of zero-knowledge proofs (ZKPs) protocol, privacy-related issues can be addressed, as data validation can be done without sharing.

Ref 28 (Revised Ref # 35)
Your summary is very generic. The paper's exact contribution or key idea needs to be captured better.

- The comment is well taken, the summary of the paper has been revised, and the authors' key considerations and ideas have been incorporated.

Yet a shift beyond DEA and into the era of Blockchain-based record keeping will have far-reaching implications for so many facets of financial reporting, management accounting, and auditing, as well as for accounting. While DEA gained popularity gradually over many centuries, it seems improbable that it will hold its current position for a longer time if the Blockchain technology lives up to its transformative potential and accounting practices switch

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towards the TEA modalities. To seize a crucial window of opportunity for influence, engagement, and impact, scholars must focus on the substantial unresolved problem set associated with this transformation.

Ref 30
This is another literature review. Your summary does not provide any valuable information to the reader. I suggest removing the reference to this paper.

- As suggested, the paper's summary (ref #30, in the original manuscript) has been removed.

Ref 31 (Revised Ref # 37)
This is a relevant paper. It discusses the potential benefits of the integration of Blockchain technology with ERP and AIS. The paper also highlights the challenges and limitations of integrating blockchain into ERP and AIS systems. Please incorporate the author's intent in the summary.

- It is highly appreciated for letting us know the importance of the paper, the summary of the paper has been revised, and the challenges and benefits of Blockchain's integration with AIS/ERP, discussed in the study, have been incorporated.

The investigation of the emerging literature on the topic states that Blockchain implementation may result in some significant benefits. Through a literature review, the authors examined that if Blockchain integrates with AIS and ERPs, it can produce better services and audit compliance. In this case study, the authors analyze an e- procurement system and its operations and select the SAP ERP system. The authors suggested additional processes to record the combined data, such as hashes, smart contracts, and shared ledger, to facilitate a Blockchain-based procurement system. SAP provides a cloud-based platform, "SAP Ariba," for buyers and sellers, and procurement in the SAP ERP system is routed through MM, SCM, and FI modules. The authors are convinced that shifting to a dedicated procurement platform is highly desirable for many reasons. Some of the advantages highlighted by the authors are: this integration can shorten procurement time and overall improvement in efficiency, reduced procurement cost, security and reliability can also be ensured, and an integrated system can provide a flexible and up-to-the-mark procurement platform. The authors also discussed cloud security, fraud, and access management issues. They concluded that DL, decentralized finance (DeFI), and FinTech applications could facilitate the integration of AIS and ERP systems for an e-procurement system and yield significant benefits.

Ref 34 (Revised ref# 38)
The paper provides an insightful look into the relationship between REA accounting, triple-entry accounting, and blockchain technology and highlights the potential benefits of combining these concepts to create a new shared ledger system for financial accounting.

- Some important details were an oversight, and we appreciate for pointing this out. The summary of the paper has been revised, and the potential benefits discussed in the study have been incorporated in the revised summary

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The authors examined the Resource-Event-Agent (REA) framework and tried to determine how it influenced TEA, resulting in the emergence of shared ledgers. The REA accounting model was proposed by William E. McCarthy in 1982. REA is a generalized accounting concept of how accounting practices can be reengineered for AIS. In the REA model, there is no concept of debit and credit. Computers generate real-world objects. The REA model surrounds by those real-world objects, and they are classified as under:
1. Resources: goods, services, and money.
2. Events: transactions that affect resources.
3. Agents: people and businesses

The study investigates a genealogical analysis with the mandate to trace the emergence of REA, TEA, and Blockchain as shared ledgers. REA accounting, TEA, and Blockchain have improved the DEA and challenged the traditional accounting system at many levels. REA, in general, is a framework to establish the ontology, whereas TEA is considered an implementation of REA. However, REA provides a concept that is functionally equivalent to TEA: the Open-edi (an ISO/IEC standard for electronic data interchange) Distributed Business Transaction Repository (OeDBTR), when TEA applies specifically to inter-entity transactions. The OeDBTR term is assigned within the REA ontology for a system that tracks and records the history of the events triggering the changes in multiple business entities and relies on an independent view of the transactions as a single source of truth. The ability to maintain multiple views of the same transaction from various locations without compromising the integrity of the record is a key feature that both TEA and OeDBTR share. The study further reveals that a shared ledger is a great innovation. Still, it is not the ultimate solution because DEA and traditional bookkeeping practices are not expected to be replaced soon. Share ledger can be beneficial for preventing fraud and money laundering, but a shared ledger cannot do on its own. They guide and direct toward an effective and transparent implementation in accounting and finance.

Ref 35
In this paper author proposes a new accounting system called π Account, which is4 based on TES and utilizes blockchain for financial transactions. Please summarize the accounting system.

- We respect the comments. This paper has been removed from the revised manuscript due to unclear content.

Discussion
Please include discussions of:
Need for more trust in the B2B business model due to the limitations of DEA.

- Again, we appreciate highlighting a major issue in our paper. In the discussion section, the paragraph in which we discussed the DEA and TEA has been revised for further discussion on the limitation of DEA for the B2B business model. In support of our discussion, a table has also been added that summarizes the features' comparison of double-entry and triple-entry accounting and is further discussed.

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The DEA, the underlying accounting method in AIS that has been used for centuries, covers all aspects of bookkeeping. In a B2B business mode, when two parties enter a business deal, they record transactions in their respective books, and there are chances of errors and misrepresentation. There is no coordination or cross-verification between the parties, which may lead to the parties becoming untrustworthy for many reasons. In this scenario, we see that DEA lacks here. Again, it's not the fault of the DEA, but the advancement in technology, the high volume of transactions, and the growth of business demand determine the DEA's limits. The three-entry accounting model with Blockchain as a shared ledger could be a choice but also vital for safe, secure, and trusted B2B transactions. Suppose a Blockchain-based TEA model is applied in accounting and financial systems and AIS suing ERP system. In that case, it will help improve the traditional accounting cycle standards, offer cost savings, and ensure business transactional security.

- Some key features of double-entry and triple-entry account bookkeeping are summarized in Table 3.

Advantages and limitations of using blockchain in AES.

- The suggestions are well taken, and a table in the discussion section has been included that highlights the advantages and limitations of Blockchain-based triple-entry accounting.
- Table 4 summarizes the advantages and limitations of Blockchain-based TEA with regard to their implementation in B2B business.

- All comments and suggestions are well taken as they were highly important and valuable. In the decision, some major revisions and improvements were suggested. The abstract and conclusion of the study have been revised. The summary of each cited paper has been revised, irrelevant and less important papers have been removed, the discussion section has been revised, and some new tables and comparisons have been added. Further, the outcomes and findings of this survey have also been incorporated in the discussion section. After incorporating the comments, the paper has been improved significantly and goes with the title.

Reviewer B

Does this paper represent a useful reference or tool for academic or industry researchers of cryptocurrency and/or blockchain scholarship?

Not sure

- We respect the comment. The paper addresses Blockchain-based Triple-Entry Accounting (TEA) implementation in the B2B business model.

Please briefly explain why you think the paper would or would not be useful to researchers.
Paper is too short.

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- All comments and suggestions are highly appreciated and taken very well. The paper has been revised, and many new studies have been included in the revised manuscript, which has improved the length of the paper significantly.

Is the submission's coverage of the topic comprehensive and up to date?

Yes

Please assess the article's level of academic rigor.

Good (not excellent, but a long way from poor)

- We respect the comment. The paper has been revised, new content about Blockchain, TEA and B2B business model has been added, and now, it is significantly improved.

Please assess the article's quality of presentation.

Good (not excellent but a long way from poor)

- We respect the comment. After incorporating major revisions, the overall quality of the paper has significantly improved.

How does the quality of this review compare to other reviews in this field?

This is a good or average review.

Please provide your free-form review for the author in this section.

The paper is about blockchain and triple entry accounting system and is well written. All sections of the papers are explained in a professional way and cover updated information on the topic. Language is good, professional and free from grammatical errors. My only concern is about the length of the paper because a review or survey article must have adequate information and this article lacking on this issue. A chance must be given to the authors for their efforts, therefore, I recommend to revise and resubmit the paper.

- The comments and suggestions are highly valuable and important to us. The paper has been revised, and the major content has been changed. New material about Blockchain, TEA, and B2B business models has been added, and several new studies have also been incorporated, which has not only improved the overall quality of the paper, which is now 22 pages.

- All comments and suggestions are well taken. Some revisions and improvements were suggested, and all have been incorporated into the revised manuscript.

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