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Blockchain technology and Cloud 2.0, integration into Business Systems.

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ABSTRACT

The Cloud industry has created an almost billion dollar ecosystem. But it is only the first step. Blockchain technology is the next logical iteration of computing. Cloud technology was the first to move away from centralization. Businesses needed to archive files and have sufficient computing power on a daily basis. However, the server rooms required maintenance, constant security, proper provisioning, and regular updates. By moving servers offsite (or to the cloud), companies have been able to expand their operations beyond the limits of their hardware. Today, companies can move offices virtually anywhere and even hire remote workers with ease. Computers and smartphones are simply bridges to more processing power concentrated elsewhere. Blockchain is introducing the second iteration of the computation framework. Through distributed ledger technology, Blockchains create secure, immutable and democratic computing networks. This could lead to non-hackable web programs and services, transparent networks, and increased system reliability. The concept of Blockchain could apparently seem similar to that of the cloud: considering the "Sharing" of information, which can be data or otherwise; the cloud, in fact, allows users to have a company (e.g. Google or Amazon) to which they can entrust their data to be able to use them "on demand" from any workstation connected to the internet. By carefully analysing blockchain technology, the differences begin to be evident. Technically we speak of DLT: Distributed Ledger Technology, i.e. the shared ledger technology. Blockchain specializes in DLTs for the way and the tools it uses to structure itself and achieve its purpose. While the cloud is based on the sharing of data, the storing of them, their retrieval via the web, the blockchain "transfers (shares) value". It is in fact capable of protecting at high levels the value of a data (a document, a software, a consultancy, an article) and of transferring it to someone else in a secure, traceable way, even in the case of particular documents such as accounting, administrative. If the cloud security system stops at the classic login-passwords, the blockchain adds elements of difficulty such as hashing, private and public keys, time-stamps, distribution and total decentralization of the ledger (database), the block structure.

KEYWORDS

Blockchain; Cloud; Accounting; Business Systems; Innovation.

REFERENCES

- AlRawi, H., Mosteanu, N. R. & AlRawi, I. H. (2019). Control Environment, Risk Assessment and Monitoring in United Arab Emirates Businesses. In *Creative Business and Social Innovations for a Sustainable Future*, Springer, Cham, 55-65.
- Capitanio, F., Adinolfi, F., Itani, R., & Faccia, A. (2020). Measurement of Financial and Asset Performance of Agricultural Farms: Operational Proposal for a New Rating Model for Agricultural Companies for a Sustainable Development of the Industry. In *Sustainable Development and Social Responsibility—Volume 1* (pp. 109-119). Springer, Cham.
- Capitanio, F., Hannon, A., Darville, J., & Faccia, A. (2020). Assessing Crop Yield and Risk: A New Method for Calculating Insurance Based on Rainfall. In *Sustainable Development and Social Responsibility—Volume 1* (pp. 43-60). Springer, Cham.

The International EFAL-IT BLOG

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Volume 1 – Issue 8/2020 – Bacau (Romania)

- Darville, J., & Faccia, A. (2020). An Analysis of Corporate Social Responsibility and Role of Intermediaries for Value-Added Services. In *Sustainable Development and Social Responsibility—Volume 1* (pp. 23-34). Springer, Cham.
- Faccia, A. & Moşteanu, N. R. (2019). Accounting and Blockchain technology: from double-entry to triple-entry. *The Business & Management Review*, 10(2), 108-116.
- Faccia, A. & Moşteanu, N. R. (2019). Tax evasion - information system and Blockchain. *Journal of Information Systems & Operations Management*, 13(1), 65-74.
- Faccia, A. (2012). Analisi dei dati RICA finalizzati all'approfondimento del tema della gestione del rischio in agricoltura. Misurazione delle performance finanziarie e patrimoniali delle aziende agrarie e relativa definizione di un modello di rating.
- Faccia, A. (2019, August). Data and Information Flows: Assessing Threads and Opportunities to Ensure Privacy and Investment Returns. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 54-59).
- Faccia, A. (2019, August). Data and Information Flows: Assessing Threads and Opportunities to Ensure Privacy and Investment Returns. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 54-59).
- Faccia, A. 2020. Blockchain Financial Statement validation and submission. The very first case in 2020: Blockchain Italia S.r.l.. www.alexpander.it
- Faccia, A. 2020. FinTech Revolution. www.alexpander.it
- Faccia, A. 2020. Quantum Finance. Opportunities and threats. www.alexpander.it
- Faccia, A. 2020. Tackling Tax Evasion through Big Data Analytics. www.alexpander.it
- Faccia, A. 2020. The needed cooperation between accounting experts and corporate lawyers to challenge tax crimes. www.alexpander.it
- Faccia, A. X-Accounting®-Towards a new Accounting System. Blockchain applied accounting. How robots will overcome humans in accounting Recording.
- Faccia, A., & Mosco, D. (2019). Understanding the Nature of Accounts Using Comprehensive Tools to Understand Financial Statements.
- Faccia, A., & Mosco, D. (2019). Understanding the Nature of Accounts Using Comprehensive Tools to Understand Financial Statements.
- Faccia, A., & Mosteanu, N. R. (2019). Accounting and blockchain technology: from double-entry to triple-entry. *The Business & Management Review*, 10(2), 108-116.
- Faccia, A., & Mosteanu, N. R. (2019). Accounting and blockchain technology: from double-entry to triple-entry. *The Business & Management Review*, 10(2), 108-116.
- Faccia, A., Al Naqbi, M. Y. K., & Lootah, S. A. (2019, August). Integrated Cloud Financial Accounting Cycle: How Artificial Intelligence, Blockchain, and XBRL will Change the Accounting, Fiscal and Auditing Practices. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 31-37).
- Faccia, A., Al Naqbi, M. Y. K., & Lootah, S. A. (2019, August). Integrated Cloud Financial Accounting Cycle: How Artificial Intelligence, Blockchain, and XBRL will Change the Accounting, Fiscal and Auditing Practices. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 31-37).
- Faccia, A., Moşteanu, N. R. (2019). Accounting and Blockchain technology: from double-entry to triple-entry. *The Business & Management Review*, 10(2), 108-116.
- Faccia, A., Moşteanu, N. R. (2019). Tax evasion - information system and Blockchain. *Journal of Information Systems & Operations Management*, 13(1), 65-74.
- Faccia, A., Moşteanu, N. R., Cavaliere, L. P., L. & De Santis, G. (2020). The rise of online banks in Italy “WIDIBA Bank” Case Study. *Financial Markets, Institutions and Risks*, 4(2).
- Faccia, A., Moşteanu, N. R., Cavaliere, L. P., L. & De Santis, G. (2020). The rise of online banks in Italy “WIDIBA Bank” Case Study. *Financial Markets, Institutions and Risks*, 4(2).

The International EFAL-IT BLOG

Information Technology *innovations in Economics, Finance, Accounting, and Law*
Volume 1 – Issue 8/2020 – Bacau (Romania)

- Faccia, A., Moșteanu, N. R., Fahed, M. & Capitanio, F. (2019). Accounting Information Systems and ERP in the UAE. In Proceedings of 3rd International Conference on Cloud and Big Data Computing.
- Faccia, A., Moșteanu, N. R., Fahed, M. & Capitanio, F. (2019). Accounting Information Systems and ERP in the UAE. In Proceedings of 3rd International Conference on Cloud and Big Data Computing.
- Faccia, A., Mosteanu, N. R., Fahed, M., & Capitanio, F. (2019, August). Accounting Information Systems and ERP in the UAE: An Assessment of the Current and Future Challenges to Handle Big Data.
- Faccia, A., Mosteanu, N. R., Fahed, M., & Capitanio, F. (2019, August). Accounting Information Systems and ERP in the UAE: An Assessment of the Current and Future Challenges to Handle Big Data. In Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing (pp. 90-94).
- Manni, F. (2018). Il percorso logico contabile di costruzione del bilancio ordinario di esercizio. G Giappichelli Editore.
- Manni, F., Faccia A. (2015). Cash Flow Analysis and Case Studies. Aracne Editrice
- Manni, F., Faccia A. (2015). Financial Accounting. Text and Cases. Aracne Editrice
- Manni, F., Faccia A. (2015). Introduction to Accounting - Textbook. Aracne Editrice
- Manni, F., Faccia, A. (2020). The Business Going Concern: Financial Return and Social Expectations. In Sustainable Development and Social Responsibility—Volume 1 (pp. 201-213). Springer, Cham.
- Moșteanu N. R. (2019). Intelligent tool to prevent Economic Crisis – Fractals. A possible solution to assess the Management of Financial Risk. *Quality-Access to Success Journal*, 20(172), 13-17.
- Moșteanu N. R. (2019). International Financial Markets face to face with Artificial Intelligence and Digital Era. *Theoretical and Applied Economics*, 26(3), 123-133.
- Moșteanu N. R. (2020). Artificial Intelligence and Cyber Security – A Shield against Cyberattack as a Risk Business Management Tool – Case of European Countries. *Quality-Access to Success Journal*, 21(175), 148-156.
- Moșteanu N. R. (2020). Finance digitalization and its impact on labour market. *Technium Social Sciences Journal*, Vol.8/ June 2020, 598-605.
- Moșteanu N. R. (2020). Green Sustainable Regional Development and Digital Era. In Proceedings of Green Buildings and Renewable Energy, Springer, Ch.13, 181-197.ù
- Moșteanu N. R. (2020). Management of Disaster and Business Continuity in a Digital World. *International Journal of Management*, 11(4), 169-177.
- Moșteanu N. R. (2020). Socio-Financial Disruption - Key tips to manage and ensure the business continuity. *Global Journal of Social Sciences Studies*, 6(1)
- Moșteanu N. R., Faccia, A. (2020). Digital Systems and New Challenges of Financial Management – FinTech, XBRL, Blockchain and Cryptocurrencies. *Quality-Access to Success Journal*, 21(174), 159-166.
- Moșteanu N. R., Faccia, A. (2020). Digital Systems and New Challenges of Financial Management – FinTech, XBRL, Blockchain and Cryptocurrencies. *Quality-Access to Success Journal*, 21(174), 159-166.
- Moșteanu N. R., Faccia, A., Ansari A., Shamout, M. D. (2020). Sustainability Integration in Supply Chain Management through Systematic Literature Review. *Quality-Access to Success Journal*, 21(176), 117-123.
- Moșteanu N. R., Faccia, A., Ansari A., Shamout, M. D. (2020). Sustainability Integration in Supply Chain Management through Systematic Literature Review. *Quality-Access to Success Journal*, 21(176), 117-123.
- Moșteanu N. R., Galea K. (2020). Artificial Intelligence and Cyber Security – face to face with Cyberattack – a Maltese case of Risk Management approach. *Ecoforum Journal*, 9(2)
- Moșteanu, D., Roxana, N., Faccia, D., Cavaliere, L. P. L., & Bhatia, S. (2020). Digital Technologies' Implementation within Financial and Banking System during Socio Distancing Restrictions–Back to the Future. *International Journal of Advanced Research in Engineering and Technology*, 11(6).
- Moșteanu, N. R. (2001). Impozite si taxe 2000/2001. Editura Economica, București.
- Moșteanu, N. R. (2001). Problematika Dezvoltarii Regionale in Romania. Editura Sylvi, București.

The International EFAL-IT BLOG

Information Technology *innovations in Economics, Finance, Accounting, and Law*
Volume 1 – Issue 8/2020 – Bacau (Romania)

- Moșteanu, N. R. (2003). *Dubla Impunere Internationala*. Editura Didactică și Pedagogică, București.
- Moșteanu, N. R. (2003). *Finanțarea dezvoltării regionale în România*. Editura Economica, București.
- Moșteanu, N. R. (2004). *Finante Publice*. Editura Universitară, București. Moșteanu, N. R. (2004). *Impozite si taxe*. Editura Economica, București.
- Moșteanu, N. R. (2008). *Fiscalitate*. Editura Universitară, București.
- Moșteanu, N. R. (2009). *Tehnici fiscale–Fiscal techniques*. Editura Universitară, București.
- Moșteanu, N. R. (2011). *Administrative reorganization of Romania versus Reorganization*, *Metalurgia*, Volume 16(16), 119-123.
- Moșteanu, N. R. (2011). *Efficiency of public revenues in Romania*, *Metalurgia International*, 16(12), 87-90.
- Moșteanu, N. R. (2011). *Finante Publice*. 2nd ed. Editura Universitară, București.
- Moșteanu, N. R. (2011). *How to avoid international double taxation*, *Metalurgia Journal*, 63(7), 69-72.
- Moșteanu, N. R. (2011). *Influence of financial policy about the employment in Romania*, *Budgetary Research Review*, 3(1), 3-19.
- Moșteanu, N. R. (2011). *Regionalization of Romania*, *Quality – Access to Success*, 12(2), 602-605.
- Moșteanu, N. R. (2011). *Romania’ fiscal budgetary Strategy*, *Quality – Access to Success*, 12(2), 606-609.
- Moșteanu, N. R. (2011). *Tehnici fiscale – Fiscal Techniques*. 2nd ed. Editura Universitară, București.
- Moșteanu, N. R. (2011). *The importance of fiscal budgetary strategy within Romanian economy*, *Metalurgia International*, 16(12), 125-127.
- Moșteanu, N. R. (2015). *Implication of fiscal policy for the Romanian economy during 2000 – 2015*, *EcoForum*, 4(1), 143-150.
- Moșteanu, N. R. (2015). *Solutions for increasing public budget revenue in Bulgaria, Croatia, Czech Republic, Poland and Romania*, *EcoForum*, 4(2), 123-128.
- Moșteanu, N. R. (2017). *Currency pegged to a foreign currency - GCC and Europe models*, *The Business and Management Review*, 9(1), 52-62.
- Moșteanu, N. R. (2017). *Home currency pegged into Euro – possible solution for Romanian’s economy*. *Ecoforum Journal*, 6(3), 434-443.
- Moșteanu, N. R. (2017). *The influence of financial markets on countries’ economic life*. *Economics World Journal*, 5(3), 268-280.
- Moșteanu, N. R. (2018). *Relevance of data accuracy for research and forecasts in financial and fiscal management process*. *International Journal of Development Research*, 8(7), 21933-21936.
- Moșteanu, N. R. (2018). *Taxation – an ongoing and challenging topic – VAT – special case*. *International Journal of Scientific & Engineering Research*, 9(7), 1021-1028.
- Moșteanu, N. R. (2019) *Safety finance – a different approach – Conventional versus Islamic*. *Proceedings of 8th International Conference on Advances in Social Science, Management and Human Behavior - SMHB 2019*, 24-31
- Moșteanu, N. R. (2019). *Intelligent Foreign Direct Investments to boost economic development – UAE case study*. *The Business & Management Review*, 10(2), p.1-9.
- Moșteanu, N. R. (2019). *International Financial Markets under Artificial Intelligence influence*. In *Proceedings of 34th International Business Information Management Association Conference (IBIMA)*, Madrid, Spain, 13-14 November 2019.
- Moșteanu, N. R. (2019). *New Approach of Regional Development: Innovation through Green Economy and Artificial Intelligence*. In *Proceedings of 34th International Business Information Management Association Conference (IBIMA)*, Madrid, Spain, 13-14 November 2019.
- Moșteanu, N. R. (2019). *Principles of International Finance, Banking and Taxation*. Editura Universitară, București.

The International EFAL-IT BLOG

Information Technology *innovations in Economics, Finance, Accounting, and Law*
Volume 1 – Issue 8/2020 – Bacau (Romania)

- Moşteanu, N. R. (2020). Challenges for Organizational Structure and design as a result of digitalization and cybersecurity. In Proceedings of 9th International Conference on Business and Economic Development (ICBED), August 20-22, 2020 in New York, USA. Forthcoming
- Moşteanu, N. R. (2020). Education, qualification awareness and social civism to build and sustain a healthy and developed society. In Proceedings of 28th European Biomass Conference & Exhibition, EUBCE 2020, Marseille, France, July 6-7, 2020. Forthcoming
- Moşteanu, N. R. (2020). Financial and economic policies for a sustainable development through Green Circular Economy. In Proceedings of 28th European Biomass Conference & Exhibition, EUBCE 2020, Marseille, France, July 6-7, 2020. Forthcoming
- Moşteanu, N. R. (2020). Risk assessment of financing Bioeconomy projects to develop a healthy social and business environment. In Proceedings of 28th European Biomass Conference & Exhibition, EUBCE 2020, Marseille, France, July 6-7, 2020. Forthcoming
- Mosteanu, N. R., & Faccia, A. (2020). Digital Systems and New Challenges of Financial Management-FinTech, XBRL, Blockchain and Cryptocurrencies. *Quality-Access to Success*, 21(174).
- Moşteanu, N. R., AlGhaddaf, C. (2018). Longevity – a strain on Public Pension Funding or is a new opportunity for Private Pension Funds? *International Journal of Scientific & Engineering Research*, 9(7), 144-151.
- Moşteanu, N. R., AlGhaddaf, C. (2019). Smart economic development using foreign direct investments – UAE case study. *Journal of Information Systems & Operations Management*, 13(1), 9-20.
- Moşteanu, N. R., Faccia, A. & Cavaliere, L. P. L. (2020). Digitalization and green economy - changes of business perspectives. In Proceedings of 4th International Conference on Cloud and Big Data Computing (ICCBDC), Liverpool, UK, August 26-28, 2020. Forthcoming
- Moşteanu, N. R., Faccia, A. & Cavaliere, L. P. L. (2020). Digitalization and green economy - changes of business perspectives. In Proceedings of 4th International Conference on Cloud and Big Data Computing (ICCBDC), Liverpool, UK, August 26-28, 2020. Forthcoming
- Moşteanu, N. R., Faccia, A. & Cavaliere, L. P. L. (2020). Disaster Management - Digitalization and Financial Resources - important factors to keep the organization ongoing. In Proceedings of 4th International Conference on Cloud and Big Data Computing (ICCBDC), Liverpool, UK, August 26-28, 2020. Forthcoming
- Moşteanu, N. R., Faccia, A. & Cavaliere, L. P. L. (2020). Disaster Management - Digitalization and Financial Resources - important factors to keep the organization ongoing. In Proceedings of 4th International Conference on Cloud and Big Data Computing (ICCBDC), Liverpool, UK, August 26-28, 2020. Forthcoming
- Mosteanu, N. R., Faccia, A., Ansari, A., Shamout, M. D., & Capitanio, F. (2020). Sustainability Integration in Supply Chain Management through Systematic Literature Review. *Calitatea*, 21(176), 117-123.
- Mosteanu, N. R., Faccia, A., Ansari, A., Shamout, M. D., & Capitanio, F. (2020). Sustainability Integration in Supply Chain Management through Systematic Literature Review. *Calitatea*, 21(176), 117-123.
- Mosteanu, N. R., Faccia, A., Torrebruno, G., Torrebruno, F. (2019). Fractals–A Smart Financial Tool to Assess Business Management Decisions. *Journal of Information Systems & Operations Management*, 45-56.
- Mosteanu, N. R., Faccia, A., Torrebruno, G., Torrebruno, F. (2019). The newest intelligent financial decisions tool: fractals. A smart approach to assess the risk. *The Business & Management Review*, 10(2), 89-97.
- Moşteanu, N. R., Faccia, A., Torrebruno, G., Torrebruno, F. (2019). The newest intelligent financial decisions tool: fractals. A smart approach to assess the risk. *The Business & Management Review*, 10(2), 89-97.
- Moşteanu, N. R., Faccia, A., Torrebruno, G., Torrebruno, F. (2019). Fractals- A Smart Financial Tool to Assess Business Management Decisions. *Journal of Information Systems & Operations Management*, 13(1), 45-56.
- Moşteanu, N. R., Faccia, A., Torrebruno, G., Torrebruno, F. (2019). The newest intelligent financial decisions tool: fractals. A smart approach to assess the risk. *The Business & Management Review*, 10(2), 89-97.
- Mosteanu, N. R., Faccia, A., Torrebruno, G., Torrebruno, F. (2019). Fractals–A Smart Financial Tool to Assess Business Management Decisions. *Journal of Information Systems & Operations Management*, 45-56.

The International EFAL-IT BLOG

Information Technology *innovations in Economics, Finance, Accounting, and Law*
Volume 1 – Issue 8/2020 – Bacau (Romania)

- Moșteanu, N. R., Fathi Modarress, B. (2020). Financial digitalization and its implication on workforce qualification and job offer. In Proceedings of 9th International Conference on Business and Economic Development (ICBED), August 20-22, 2020 in New York, USA. Forthcoming
- Moșteanu, N. R., Mitroi, M. (2015). European Tax Models, *Economics World Journal*, 3(1-2), 18-30.
- Moșteanu, N. R., Moșteanu, T., AlGhaddaf, C., Butoianu, M. M. (2019). Finance: Challenges of Digital Era. Editura Universitară, București.
- Moșteanu, N. R., Vlaicu, A. (2009). The flat-rate tax a measure against economic crisis in Romania. *Metalurgica Journal*, 8, 114-119.
- Moșteanu, T., Moșteanu, N. R., Iftimie, E. L. (2002). *Finanțe, Manual pentru clasa a-XII a*. Editura Economica, București.
- Moșteanu, T., Moșteanu, N. R., Panaite, A. I., tatu, L., Campeanu, E., Varban, T., Vasilescu, D. F. (2001). *Finanțe – Buget. Sinteze teoretice și aplicații practice*. Editura Economica, București.
- Paxino, D. O. & Moșteanu, N. R. (2002). Managementul riscurilor valutare aplicabile în tranzacțiile internaționale. Editura Sylvi, București.
- Petratos, P., & Faccia, A. (2019, August). Accounting Information Systems and System of Systems: Assessing Security with Attack Surface Methodology. In Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing (pp. 100-105).
- Petratos, P., & Faccia, A. (2019, August). Accounting Information Systems and System of Systems: Assessing Security with Attack Surface Methodology. In Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing (pp. 100-105).
- X-Accounting® - Towards a new Accounting System. Blockchain applied accounting. How robots will overcome humans in accounting Recording