**Paper Title:**

Machine Learning-Based Analysis of Cryptocurrency Market Financial Risk Management

**Paper Link:**

<https://ieeexplore.ieee.org/document/9743945>

**1 Summary:**

**1.1 Motivation**

This paper shows that in order to obtain a better risk management outcome, the Hierarchical Risk Parity method performs better in this paper when it comes to returning the adjusted risk tail.

**1.2 Contribution**

The asset allocation technique known as Hierarchical Risk Parity (HRP), which is used in cryptocurrency portfolios, and the Reinforcement Learning (RL) technique were used in this study to analyze the risk management of the cryptocurrency network.

**1.3 Methodology**

The best qualities and most desired diversification are found in the HRP. The results were rebalanced over the chosen period and analyzed using different estimation windows and methodologies. The applied HRP enhances the risk management procedure and provides the transitional asset allocations with a significant alternative.

**1.4 Conclusion**

Comparing reinforcement learning to other machine learning techniques used in this field, it yields results with a higher performance evaluation.

**2 Limitation**

**2.1 First Limitation**

There was no attempt to expand the suggested method by utilizing out-of-sample testing results in additional assets.

**2.2 Second Limitation**

More classes and the application of optimization techniques could be used to improve risk management performance.

**3 Synthesis**

Money laundering involves four primary processes: the sources of income, placement, layering, and integration. All these processes involve the obtaining of illegal income. This paper used the reinforcement learning technique for money laundering and digital coin risk management to prevent this.