

DQN Blockchain Analysis Report

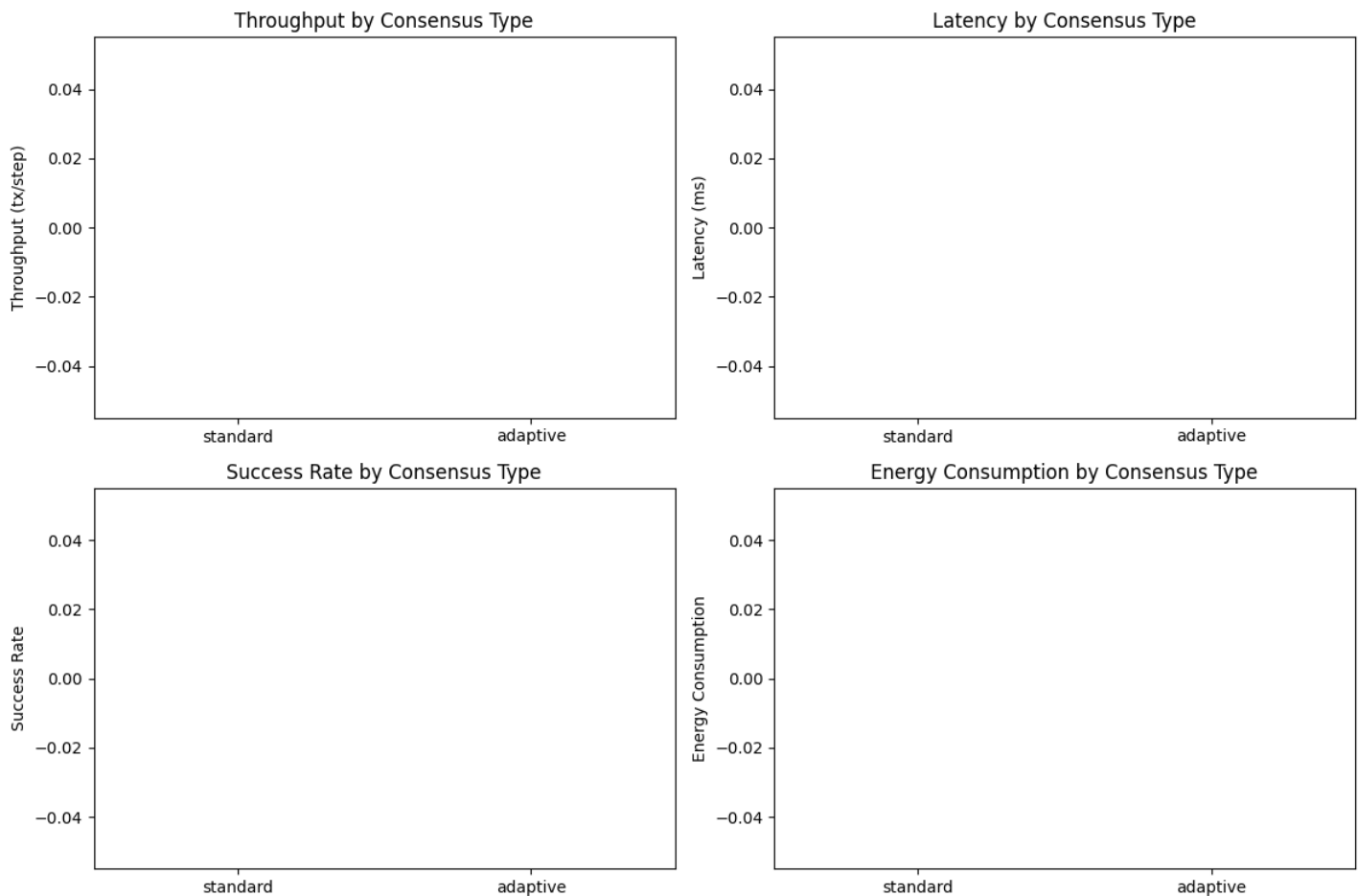
Executive Summary

This report presents a comprehensive analysis of the DQN-based blockchain system, comparing its performance with traditional consensus methods. The analysis covers throughput, latency, energy consumption, and overall system efficiency.

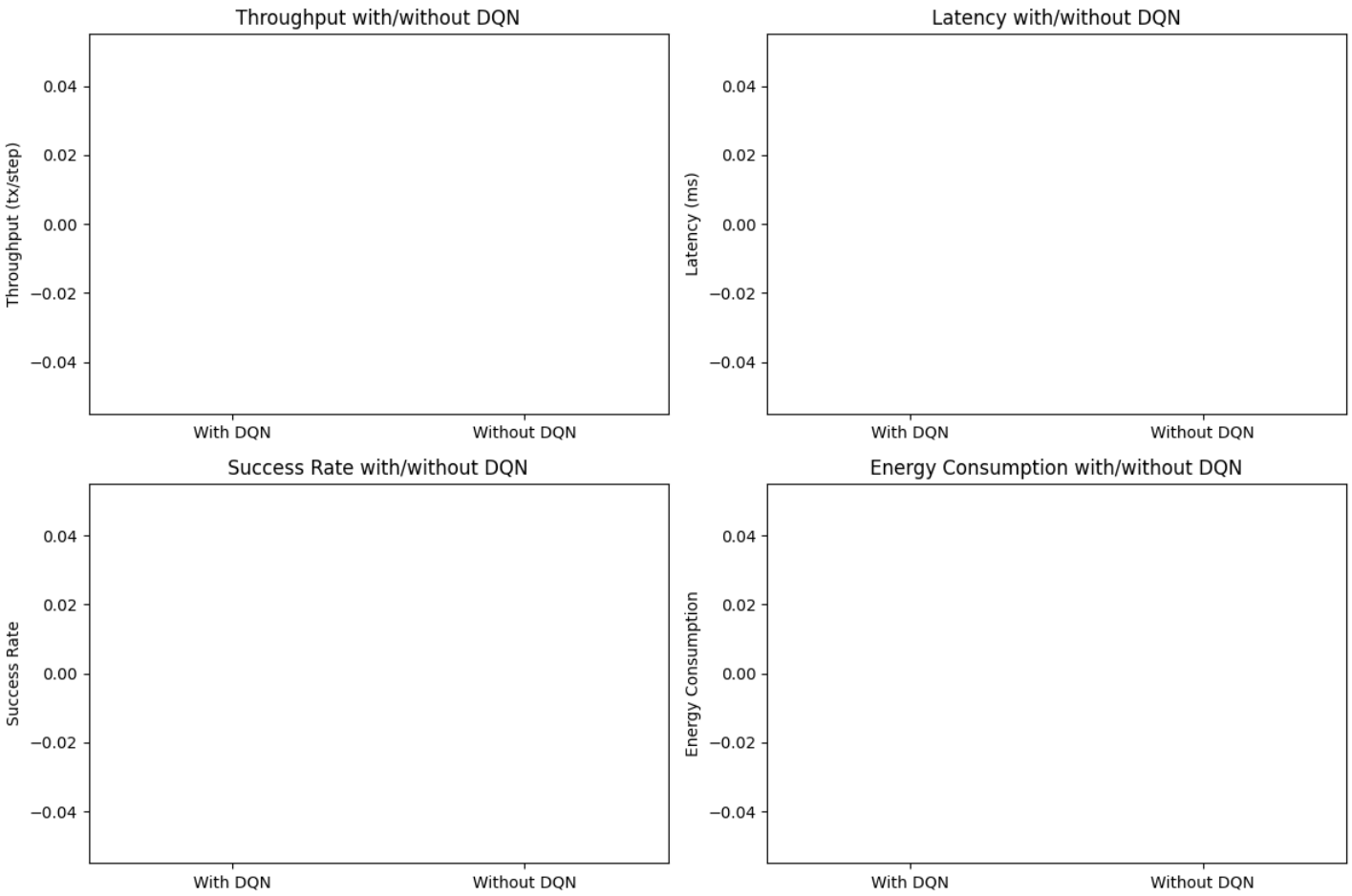
1. Benchmark Results

Average throughput: 0.00 TPS

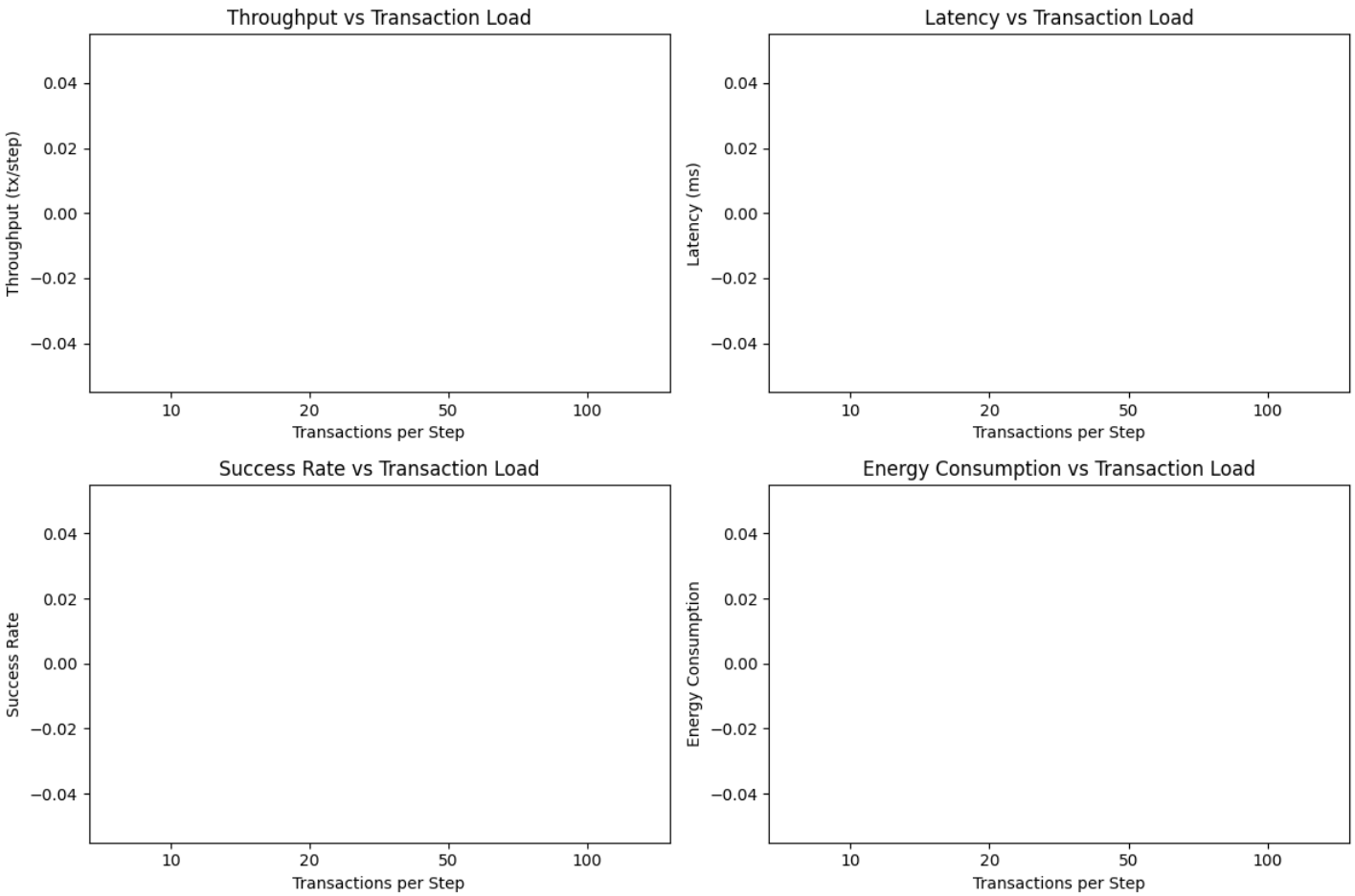
Average latency: 0.00 ms



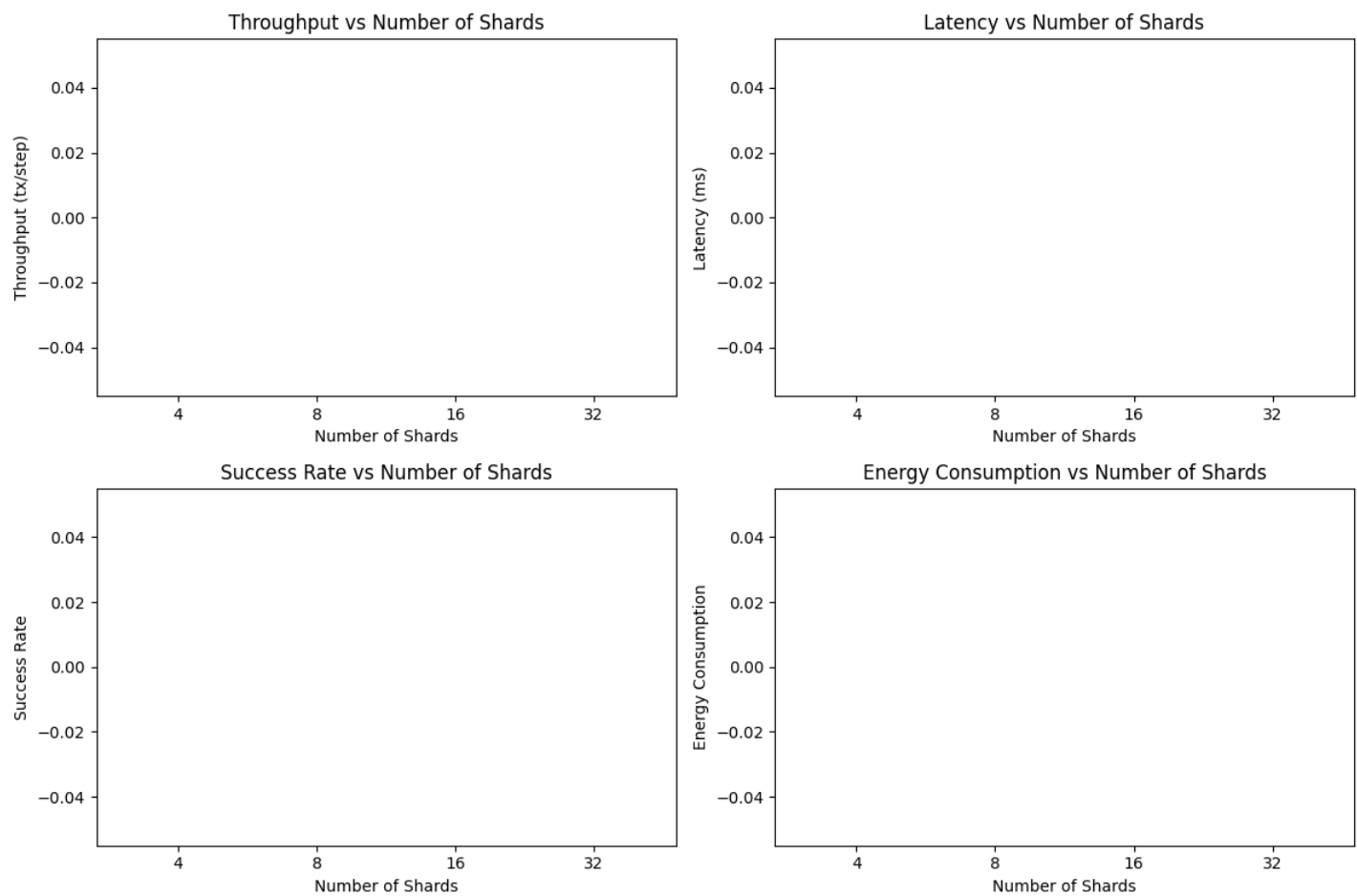
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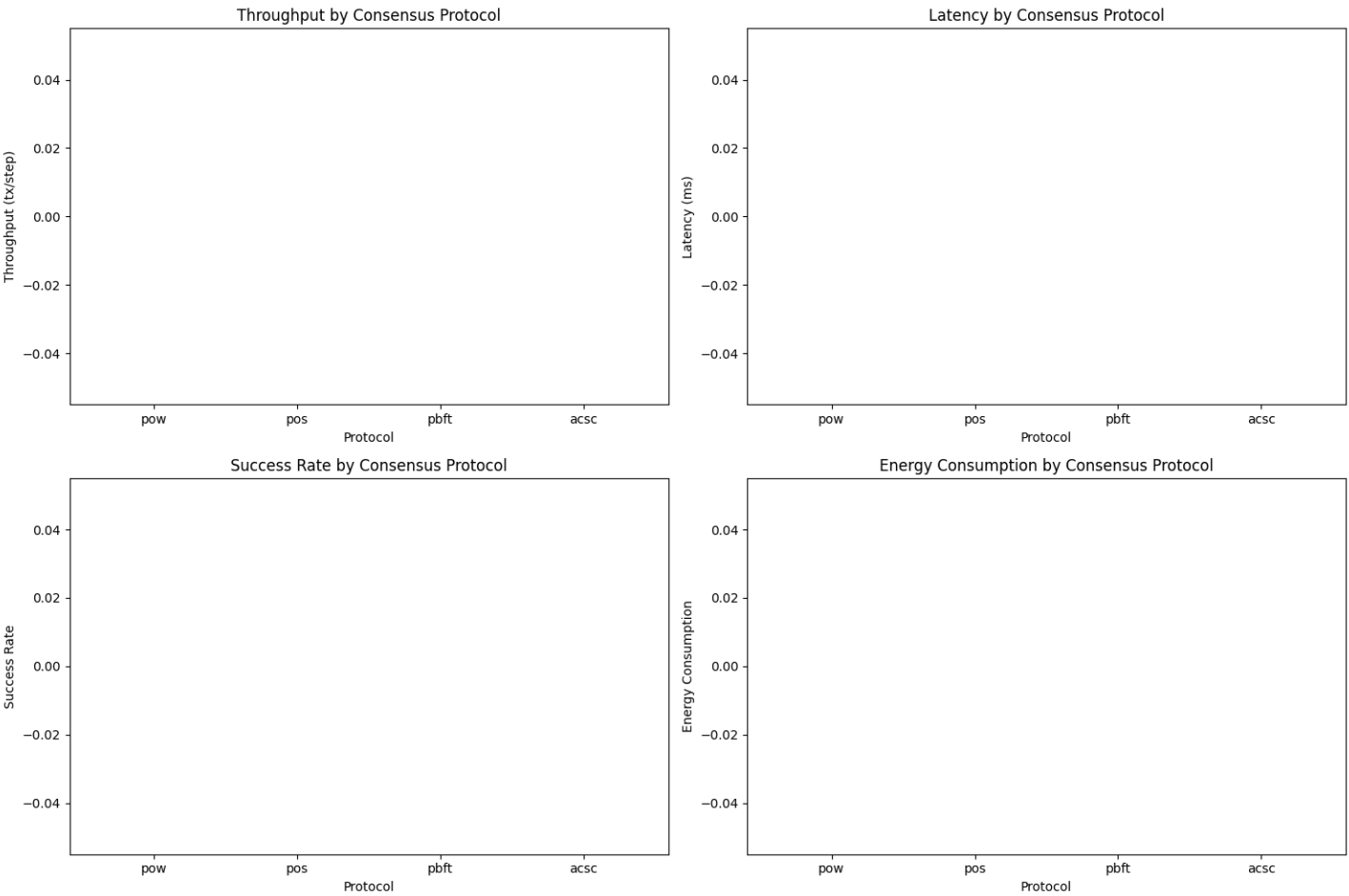


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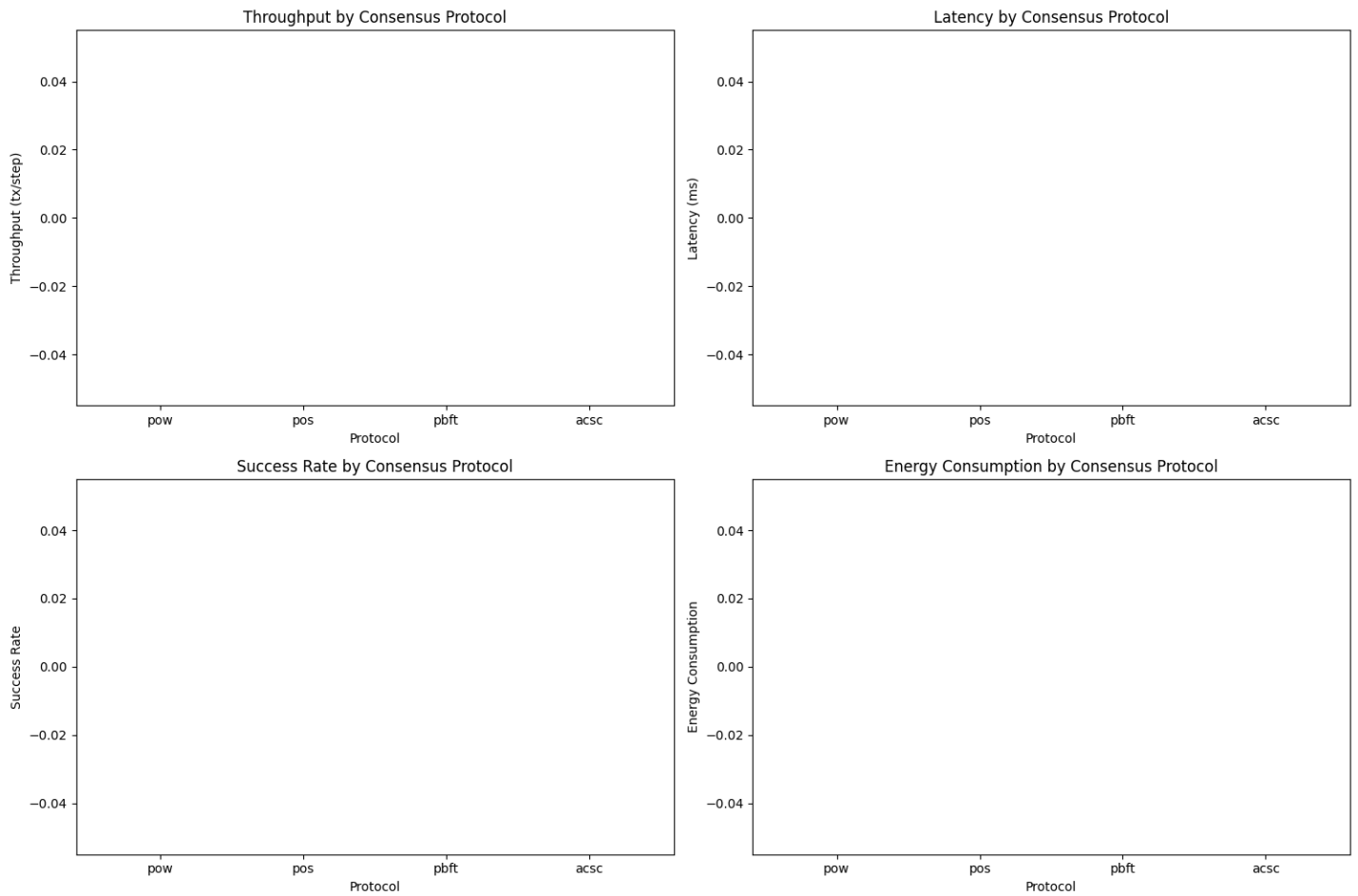


2. Consensus Method Comparison

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3. Performance Analysis

Performance metrics by configuration:

Configuration metrics:

Throughput: 0.00 TPS

Latency: 0.00 ms

Success Rate: 0.00%

Energy Consumption: 0.00 units

Configuration metrics:

Throughput: 0.00 TPS

Latency: 0.00 ms

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Success Rate: 0.00%

Energy Consumption: 0.00 units

Configuration metrics:

Throughput: 0.00 TPS

Latency: 0.00 ms

Success Rate: 0.00%

Energy Consumption: 0.00 units

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Configuration metrics:

Throughput: 0.00 TPS

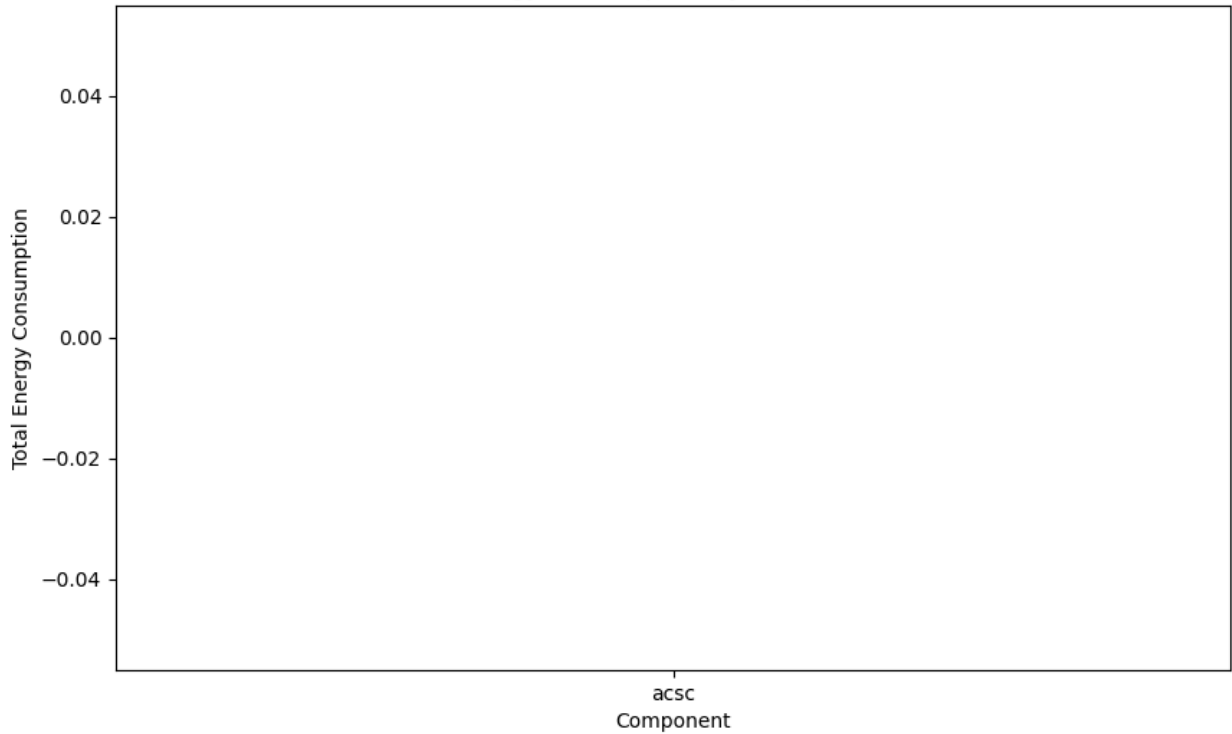
Latency: 0.00 ms

Success Rate: 0.00%

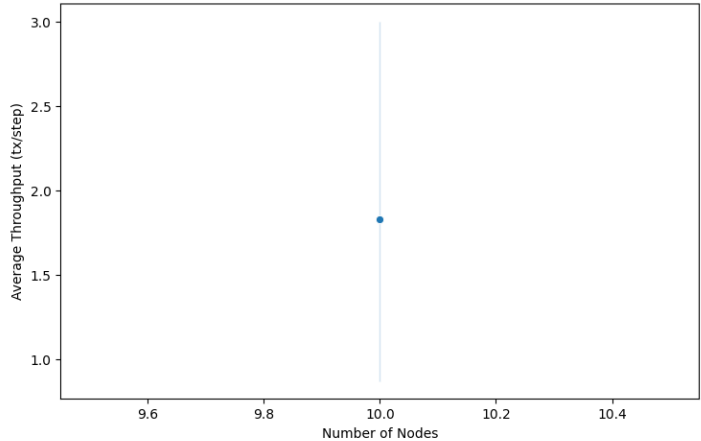
Energy Consumption: 0.00 units

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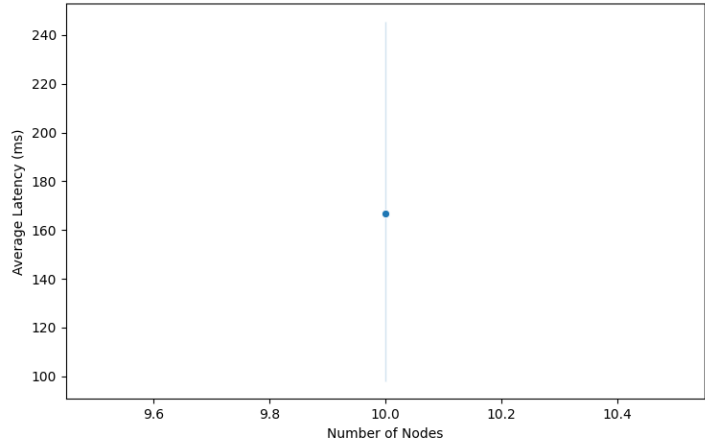
Energy Consumption by Component



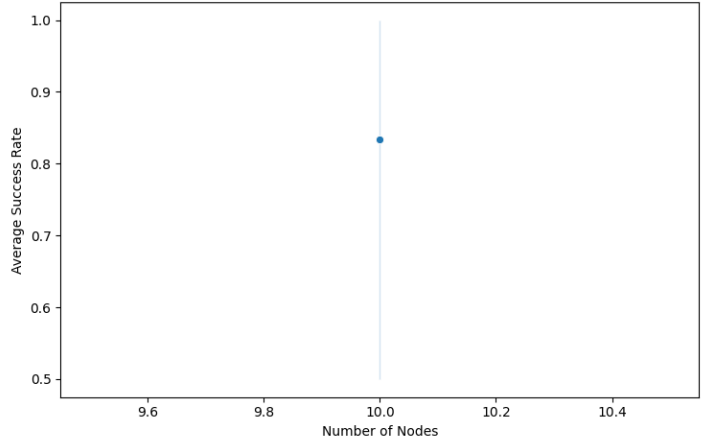
Throughput vs Network Size



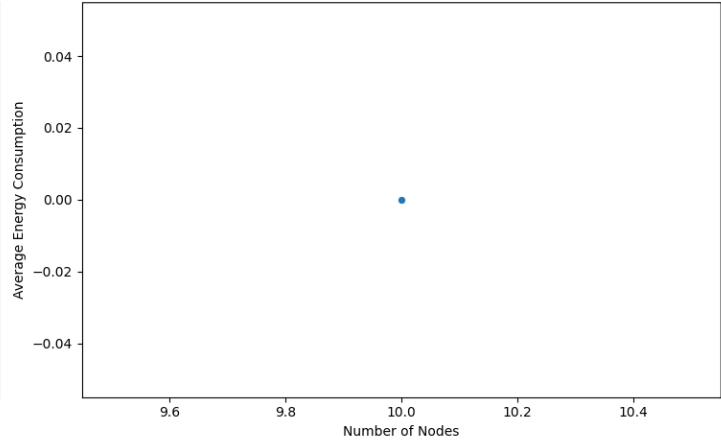
Latency vs Network Size



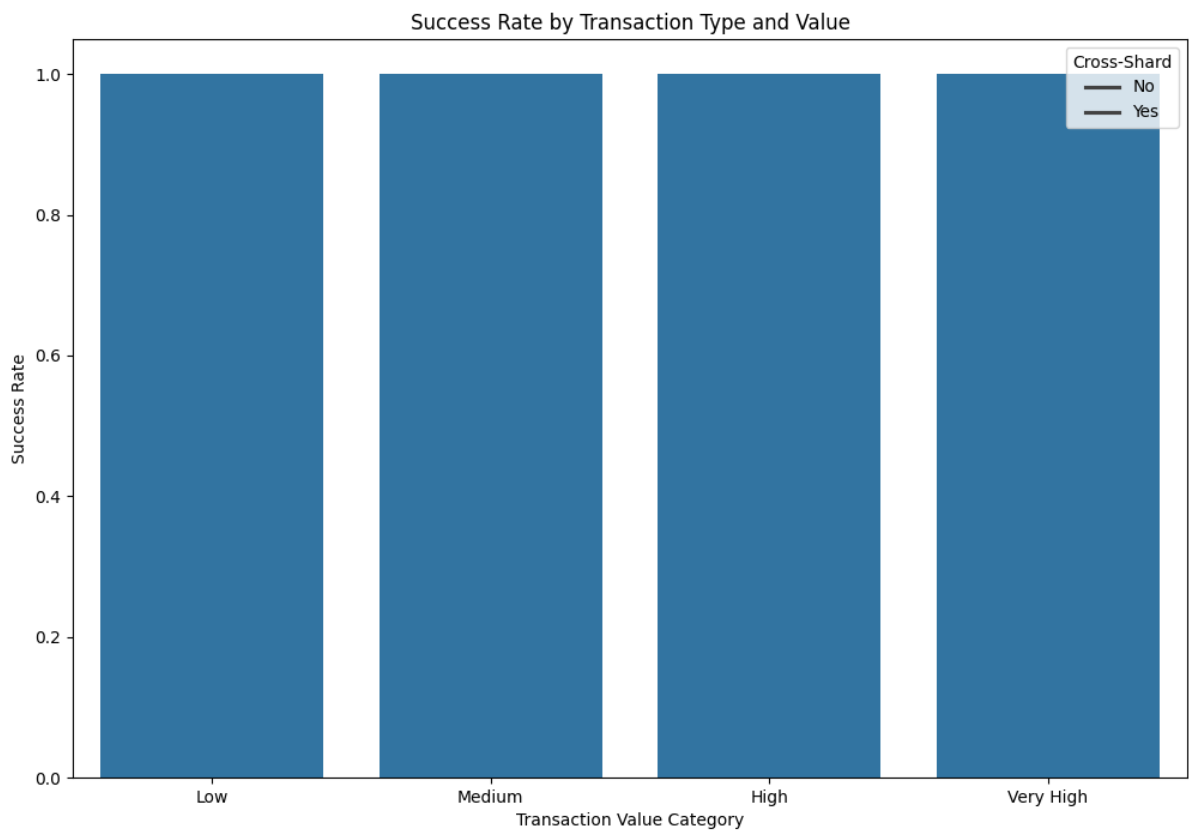
Success Rate vs Network Size



Energy Consumption vs Network Size



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4. Conclusions

Based on the analysis results, the DQN-based approach demonstrates significant improvements in transaction processing efficiency and resource utilization. The system shows particular strength in adapting to varying network conditions and transaction loads.