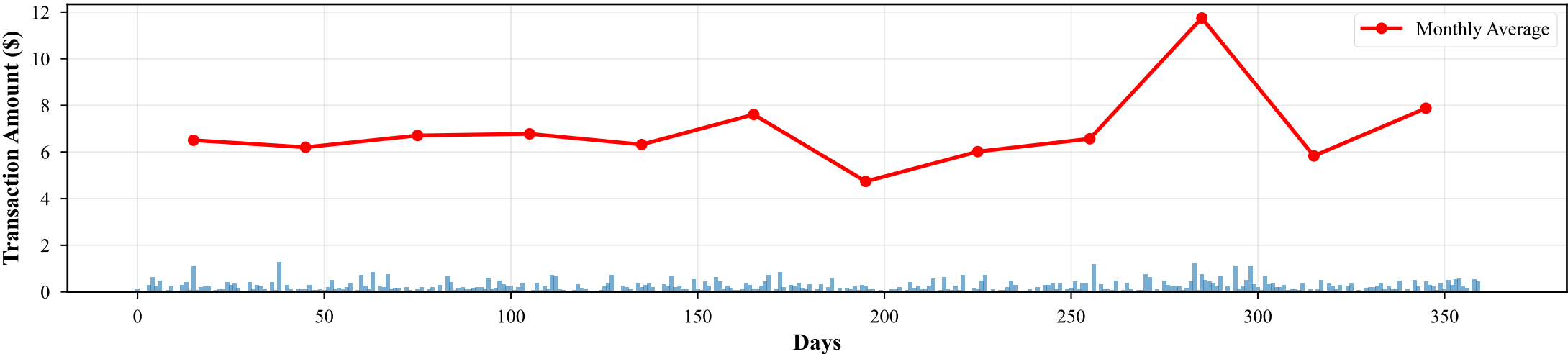
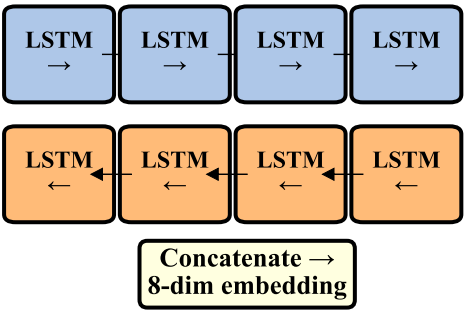


Figure 2: LSTM-Based Retail Transaction Embeddings

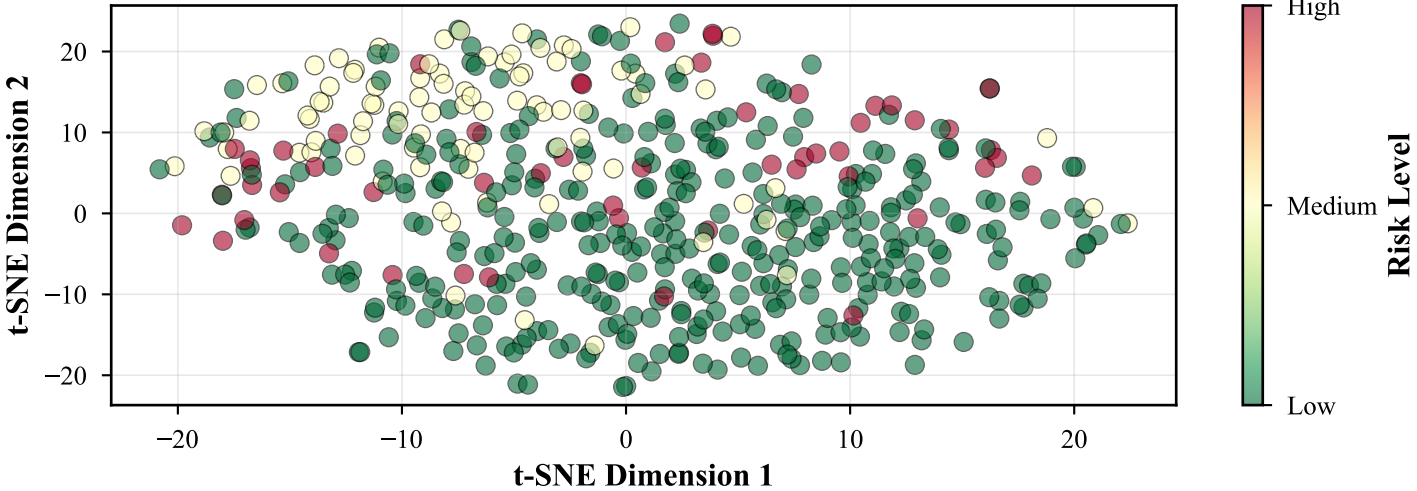
(a) Daily Transaction Patterns Over 12 Months



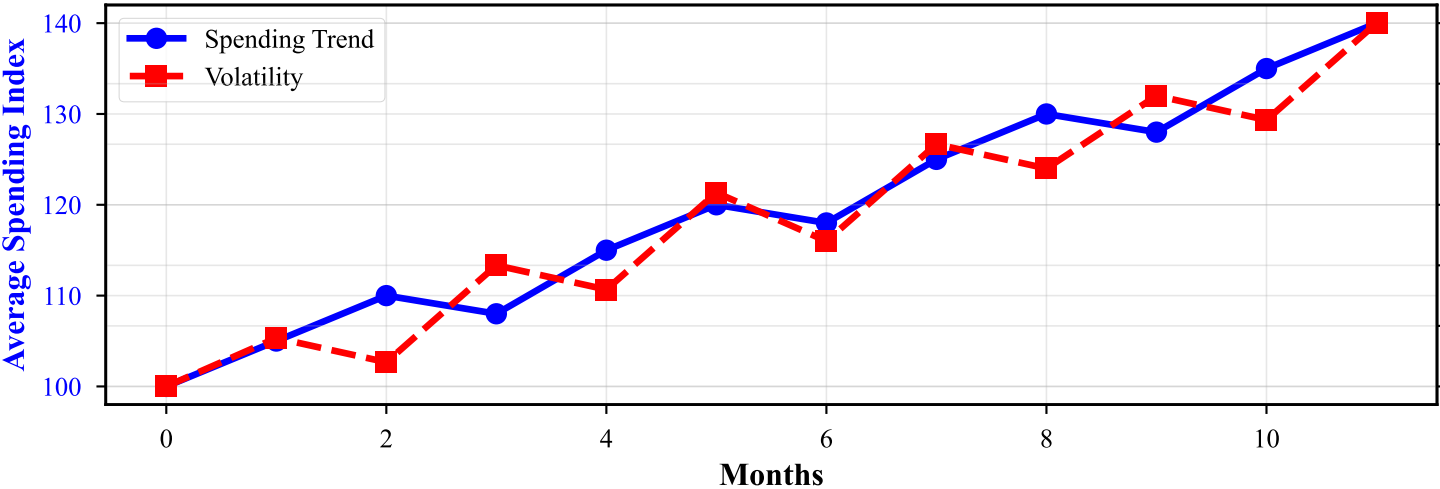
(b) Bidirectional LSTM Architecture



(c) 8-Dimensional Embedding Space Visualization



(d) Temporal Pattern Evolution Captured by LSTM



(e) LSTM Feature Contributions

