# Related Work

1. Quah.John.TS [26], author evaluates a neural network based approach i.e. called SOM (Self Organizing Map) to detect spending pattern of the customer in credit card database and SOM is a multilayer approach that consists of: The initial Authentication, Screening layer, Risk Scoring layer, Behavior Analysis layer (Core Layer) and Decision making layer and The main purpose of SOM approach is to classify and cluster input data, to detect and derive hidden patterns in input data.
2. Srivastva.Abhinav [29], HMM (Hidden Markov Model) is proposed to detect fraudulent transactions which is initially trained with the normal behavior of a cardholder therefore if an incoming credit card transaction is not accepted by the HMM with sufficiently high probability, it is considered to be fraudulent and K Mean Clustering algorithm is used to identify spending behavior of a customer
3. SOM (Self organizing map)
4. Bayesian Belief Network
5. HMM (Hidden Markov Model