Aim:

Our study aims to develop a blockchain-based web application that enhances transparency and traceability in the a
f products from farmers to warehousers, transporters, retailers and ultimately on consumers. The primary focus is o
and trustworthy transaction experience.

Abstract:

The agricultural food supply chain stands as a focal point for research, wherein disruptive technologies assume a piv
oods monitoring, and fortifying transactions. By leveraging blockchain, smart contracts, it becomes possible to moni
tire supply chain. In this investigation, we have undertaken a critical examination of the applicability of these technol
ly chain, employing the Business Process Modeling (BPM) approach.

The findings derived from the blockchain and smart contracts-based BPM analysis were subsequently integrated acr
try 4.0 (RAMI 4.0). This integration has facilitated the introduction of an innovative smart agriculture framework base
ffle suite efficiently manages the gas cost in our proposed smart contracts.

Existing System:

Traditional supply chains face limitations such as a lack of transparency, third parties' involvement, information sec
n management systems for supply chains are generally centralized, requiring entities to trust one broker with sensiti
e disadvantage of a single point of failure and are more susceptible to hacking and other attacks.

Disadvantages:

Customers always demand better quality products delivered on time and at the right price, which is a big challenge
traceability to keep track of their orders. Traceability, or tracking a product through all supply chain stages, is more c
o know the product's origin and ingredients. Maintaining supply chain visibility and tracking shipments become toug
es of transportation are used. Lack of traceability can create blind spots in the supply chain and weaken the custome
ss profit. Transportation delays and poor storage practices in warehouses are common causes that can affect the sa
ificant impact on the supply chain because there are several parties involved that have little or no knowledge of othe
inefficiency, leading to trust issues among suppliers and customers. If the supply chain operates globally, trust issue

Proposed System:

With the advent of the latest technologies, blockchain, and smart contracts, most of these challenges can be addr
gricultural food supply chain Web Application that enhances the traceability and transparency of products from Man
added payment from Consumer for the product they purchased to the Organizer in a secured, transparent way with