

# RISK ASSESSMENT OF MODERN AGRICULTURE SUPPLY CHAIN FOR VEGETABLE

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## ABSTRACT

**Purpose:** The purpose of this paper is to identify meaning of modern agriculture supply chain including risk factors which effect operation of the supply chain to direct the appropriate mitigation approach for stakeholder.

**Design/methodology/approach:** This paper gathered risk factors from historical studies then the risks was screened by experts and stakeholders to select potential risk which can affect modern agriculture supply chain.

**Findings:** According to literature review of previous study, the result reveals that there are various type of modern agriculture supply chain and each type has divergence risks. Nevertheless, they are categorized to 4 main risk criteria; supply risk, demand risk, internal risk and external risk in modern agriculture supply chain meanwhile there are specific sub-criteria for each stakeholder owing to their roles and activities in supply chain.

**Research limitations implications:** This study identifies potential risks and suggests mitigation approach for only specific supply chain. Thus, the results may not apply to other organizations directly nevertheless research method could be as guideline plan to assess the risk in other supply chain.

**Originality/value:** The originality of the study is that agriculture supply chain, nowadays, has been transformed gradually when compare with traditional agriculture supply chain since technologies, customer behaviours, equality among stakeholders influence stakeholders characteristic and operation pattern to enhance competitiveness along with emphasizing on sustainable; social, economic and environment. Besides the sustainable, risk identification is one of pivot process to improve supply chain management effectively due to provide understanding and prioritizing of potential risks which can affect supply chain operation negatively thereby managers can institute effective mitigation plans especially in modern agriculture supply which is more vulnerable than further supply chain due to seasonality, supply spike, perishability.

**Keywords:** Modern agriculture, Risk assessment, Vegetable supply chain