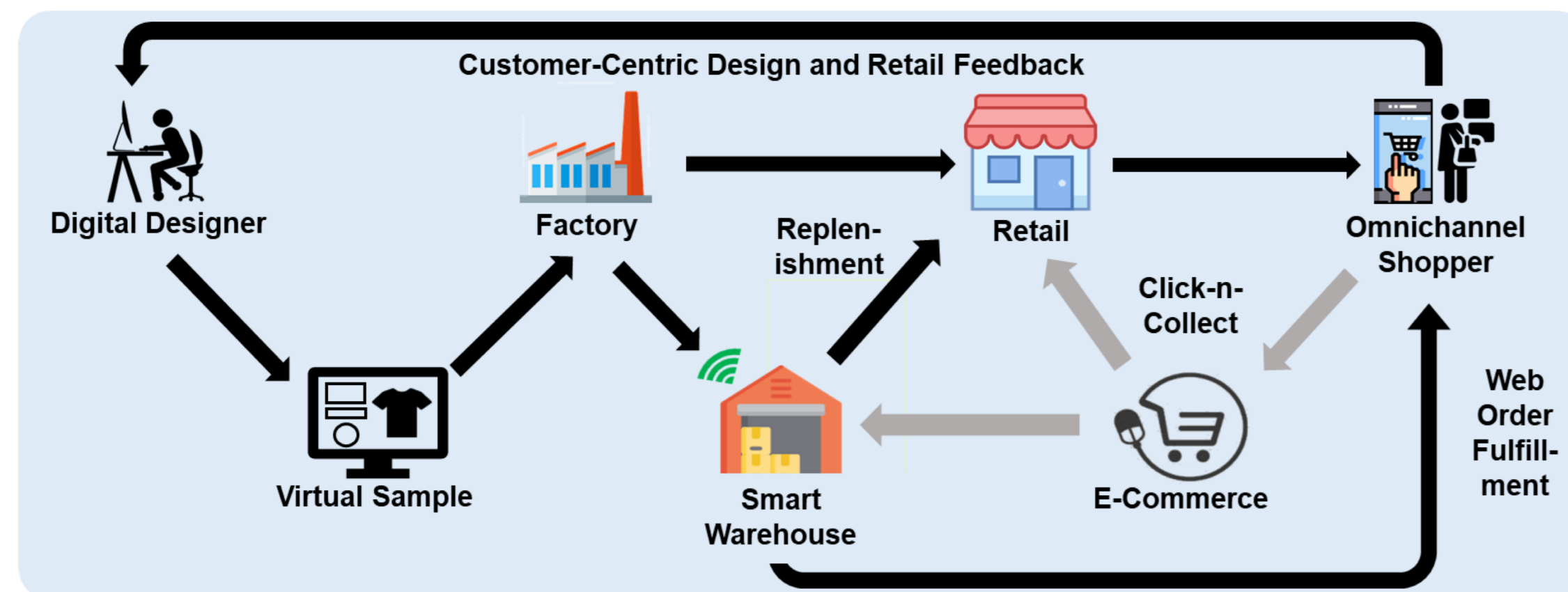


RFID & Analytics Driving Agility in Apparel Supply Chain

Student: Anil Kumar, SCM 2019
 Student: Peter Ting, SCM 2019
 Advisor: Maria Jesus Saenz, PhD

Motivation / Background

Need for an agile apparel supply chain:



Our sponsor is driving a RFID pilot to understand RFID value to transform all supply chain stages i.e. Design, Manufacturing, Logistics and Distribution and Retail.

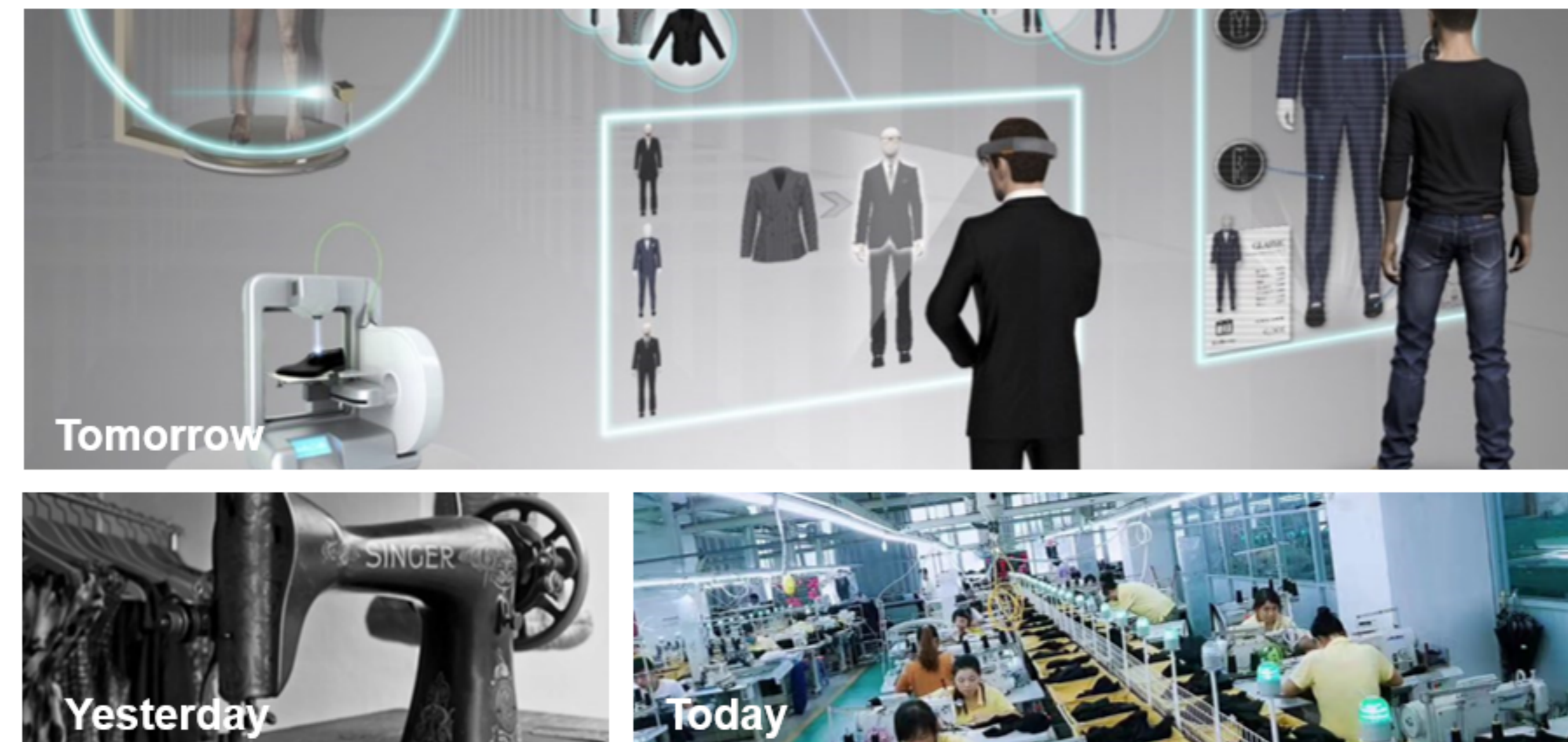
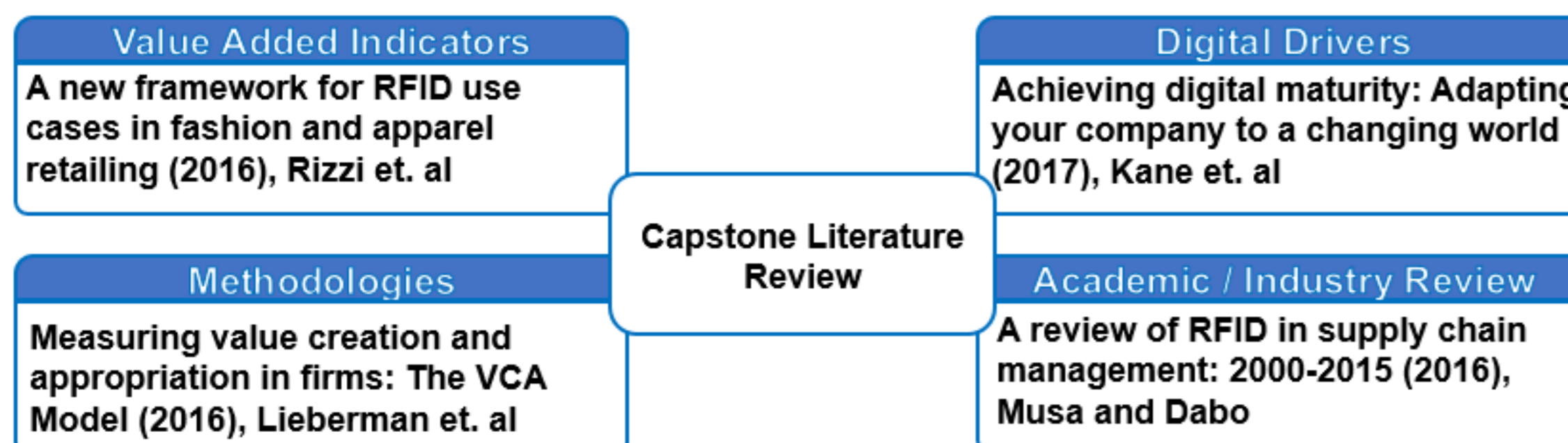
Based on the initial scope of the pilot, our project is focused on last 2 stages

Key Question / Hypothesis

H1: Clustering techniques will help classify SKUs and define the right supply chain execution policies that improve the overall agility

H2: RFID implementation and cluster based policies will improve the overall store performance

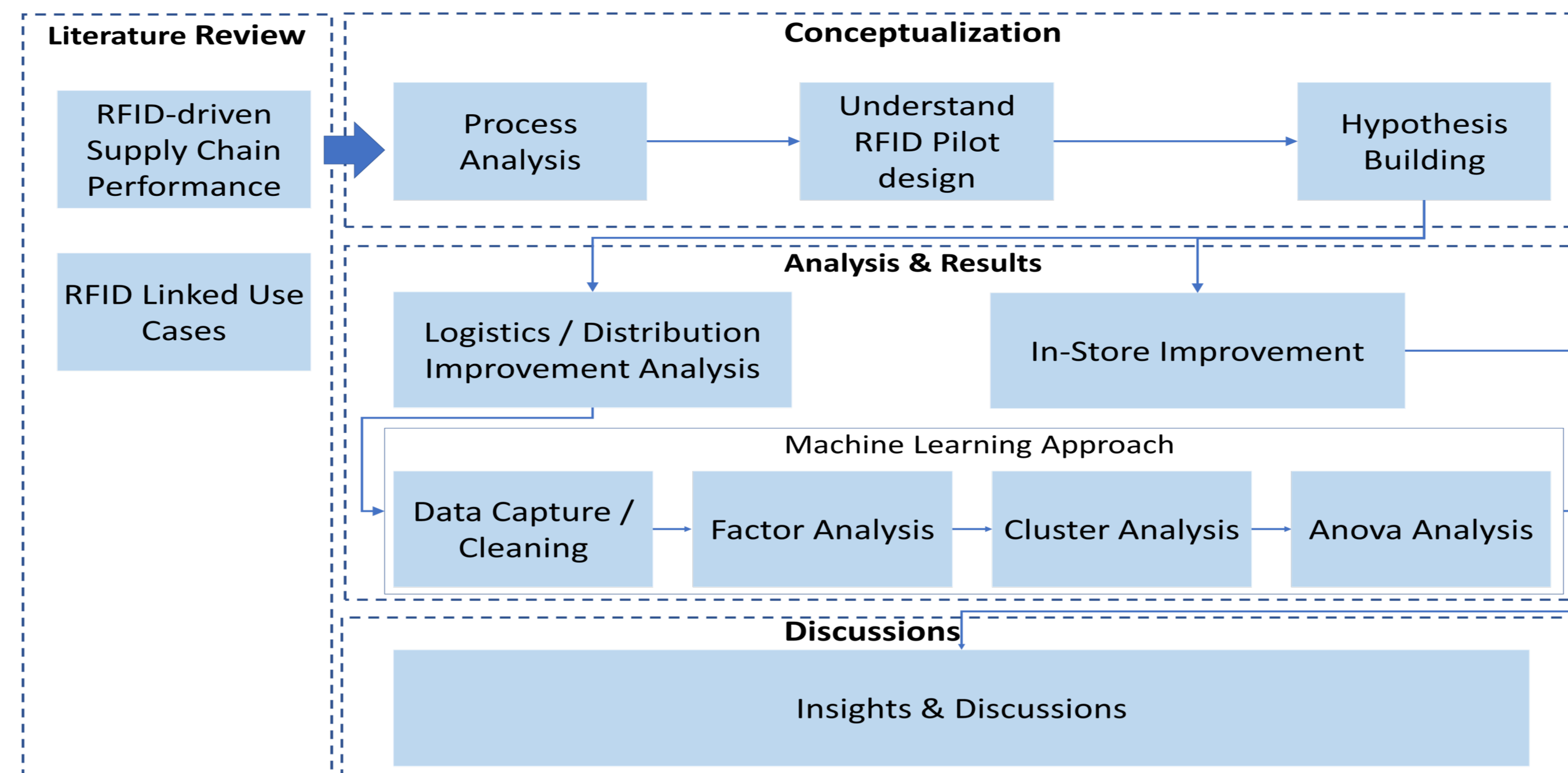
Relevant Literature



The Problem

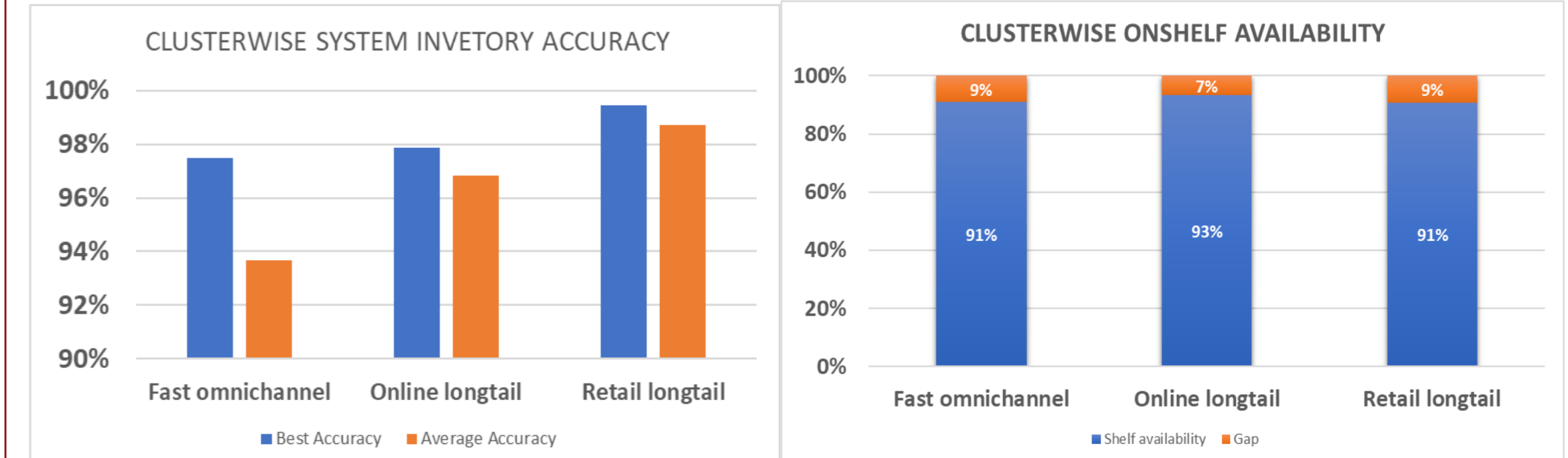
In the traditional mass apparel industry, how can RFID create value by improving **agility** through increased **visibility**, **speed** and **flexibility**?

Methodology



Results

Cluster	Cluster Characteristics
Fast moving omnichannel	<ul style="list-style-type: none"> High sales volume and low weekly sales variability Sold through multiple channels Moderate to high price range
Online longtail	<ul style="list-style-type: none"> Low sales volume and moderate weekly sales variability Sold through online channels primarily Low price range
Retail longtail	<ul style="list-style-type: none"> Low sales volume and high weekly sales variability Sold through offline channels primarily Low to moderate price range



Contribution

Our key contribution is to define a machine learning approach to capture value from RFID implementation. Using a clustering techniques we were able to identify that :

- Store will gain maximum overall value because of RFID systems
- RFID enabled analytics will help increase the speed and flexibility of stock replenishment process

Based on literature review and qualitative analysis, we captured multiple improvement areas which will help implement the RFID systems in organization and capture the right values for different stakeholders.

Anil Kumar



Peter Ting

