PATENT LICENSING/SALE PROPOSAL

SYSTEM AND METHOD FOR DETERMINING QUALITY ATTRIBUTES OF RAW MATERIAL OF TEXTILE

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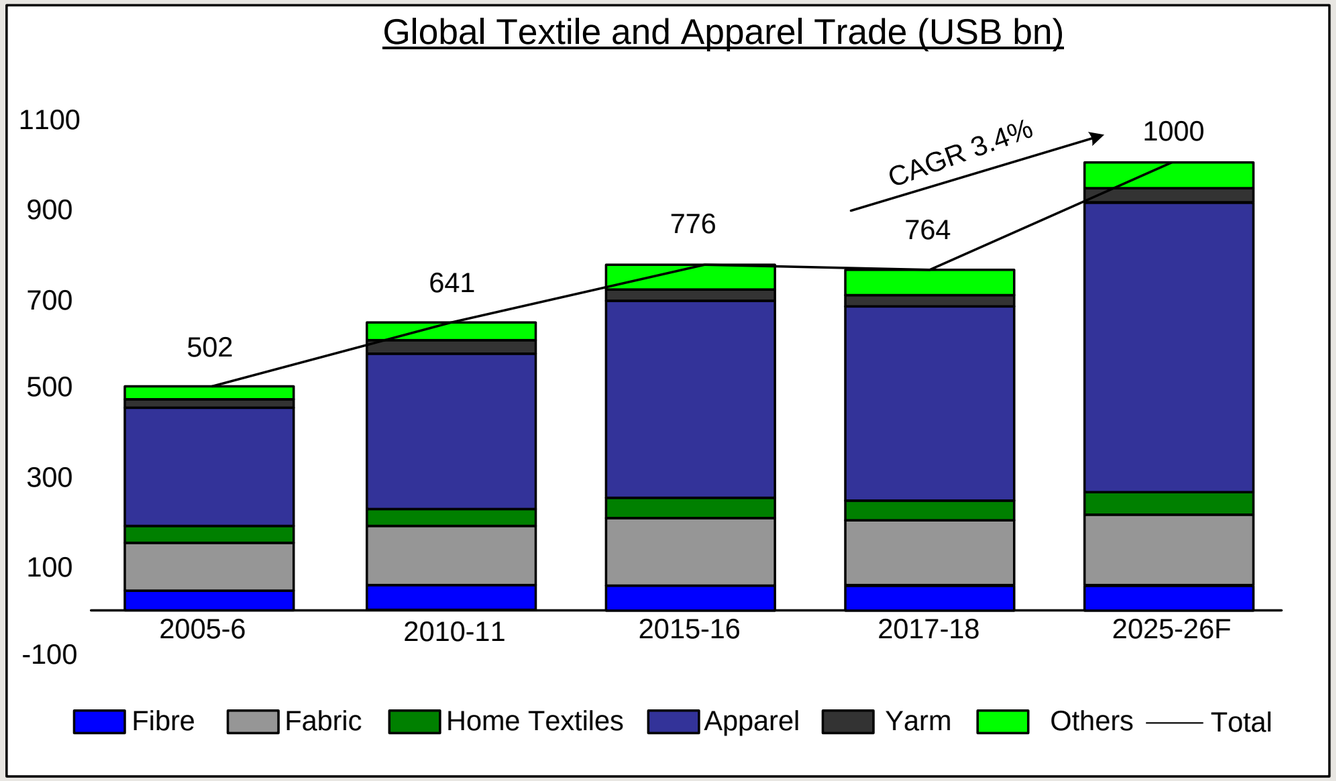
BACKGROUND

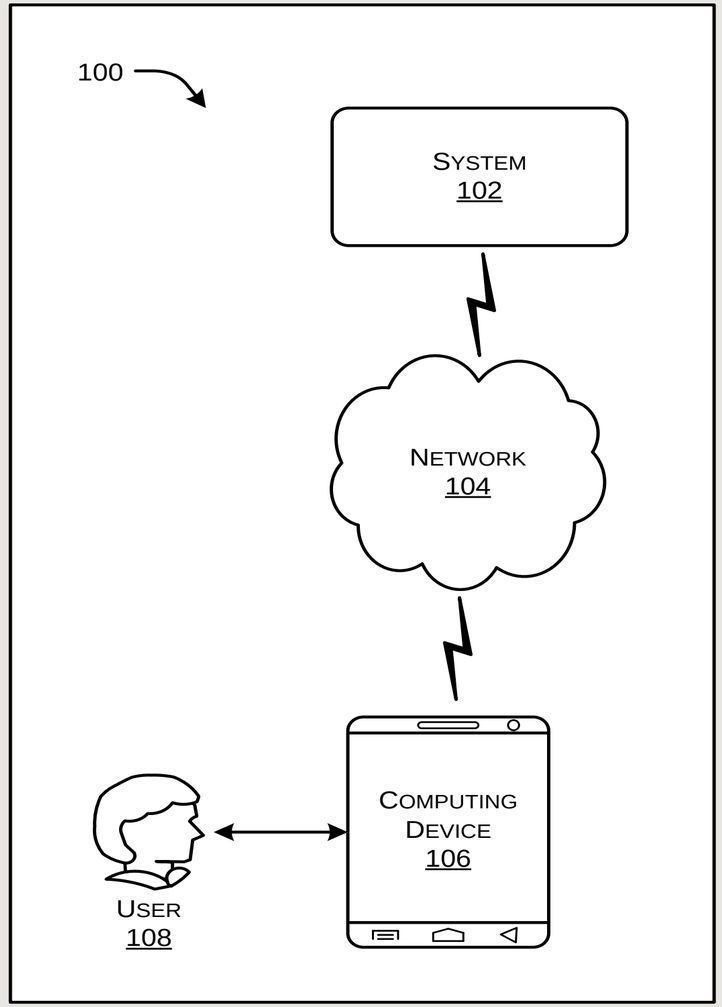
- In textile industry quality of the finished product is directly related to the quality of the fabric, yarn and fibre.
- Many factories experience quality issues with their final products as a result of **non tested quality of raw materials** passed down the production line.
- Quality and compliance of raw materials are essential for **ensuring supply chain organization** and **decreasing potential quality risks** later during production. The obstacles:
  - Lack of non-destructive testing methods
  - Lack of uniformity of test results
  - Cost of quality test



Therefore, quality management of raw materials should be embedded in the development stage and is crucial for avoiding any costly quality issues further down the line.

PROPOSED SOLUTION

- **The proposed system 102** is communicatively coupled with a **computing device 106** such as a mobile/smart phone through a network 104.
- The computing device is integrated with an **imaging device 108.**
- The system 102 is operated using a hardware component, and a software component such that :
- The proposed system, through the imaging device, **take images/photos of a textile fabric and process said image to determine one or more attributes associated with quality of raw material of the textile .**



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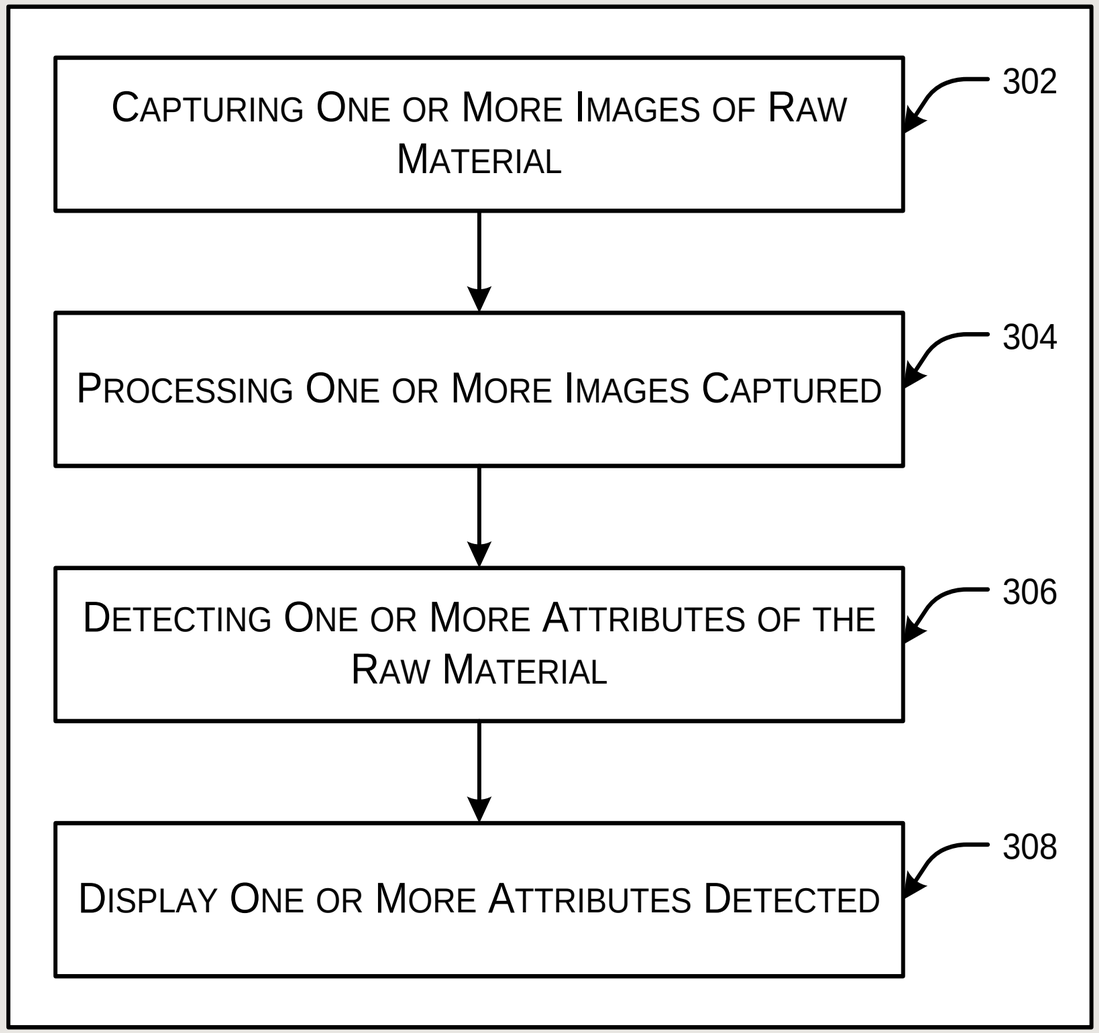

- **Step 302:** **Receiving,** one or more images of the raw material captured by the imaging device.
- **Step 304:** One or more features of the received images can be enhanced to obtain dynamically enhanced images
- **Step 306:** Values of one or more attributes of the enhanced one or more images can be extracted , wherein the one or more attributes can include any or combination of **staple length, fiber fineness, short fiber content, yarn hairiness, yarn count, yarn elongation, maturity, and moisture content**.
- **Step 308:** The extracted one or more attributes can be **compared with the attribute values stored in the first database or second database**.
- **Step 310:** The quality of the raw material can be determined based on comparing the extracted values with the reference attribute values .

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- In the Textile Industry, finished product is a consumer item bought directly by the consumer at a retail store. The proposed disruption empowers consumer to check quality attributes of a garment instantly at the time of purchase.

- Quality of garment depends upon quality of fabric, color dyes, yarn and fibre.

- The proposed disruption empowers manufacturers of all capacities who can't afford expensive testing machines to test check all raw materials and work in process materials on machines in real-time without waiting for reports to come from the laboratory, therefore, ensuring 100% checking reducing lead time to zero.

- It is well known that yarn manufacturing depends upon fiber. This proposed disruption empowers natural / cellolusic fibre produced by a farmer of any fiber such as cotton, silk, wool, among others to be tested in real time on his farm and obtain the accurate value by eliminating exploitation by corporate yarn manufacturing or trading companies.

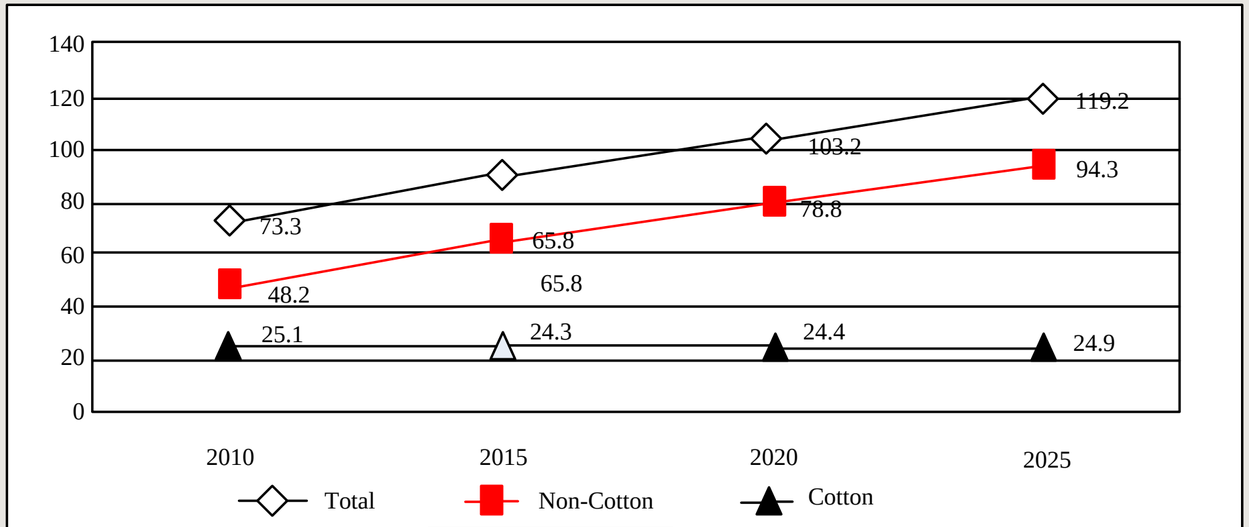
MARKET SHARE

- Globally, there is a high textile growth potential

Country	All Fibre/Capita (Kg/Capita)	MMF/Capita (Kg/Capita)
North America	36.90	22.50
Australasia	28.60	18.00
South Korea	23.30	16.30
West Europe	23.00	16.20
Taiwan	21.00	17.30
Japan	14.80	13.20
Turkey	14.10	7.60
East Europe	14.00	9.30
China	8.90	12.00
Latin America	7.15	4.90
South Asia	5.50	4.30
India	4.70	3.10
Africa/Middle East	11.20	3.30
World		7.70

*Final report on study to promote, Ministry of Textiles, India

- Cotton, as well as Non-cotton demand, is growing that pushes MMF demand, hence quality control of fabric becomes essential



	2010	2015	2020	2025	Annual Average % Change	
					2015-20	2020-25
Cotton	25.1	24.3	24.4	24.9	0.1	0.4
Non-Cotton	48.2	65.8	78.8	94.5	3.7	3.7
Total	73.3	90.1	103.2	119.2	2.8	2.9

*Final report on study to promote, Ministry of Textiles, India

PATENT LICENSING/SALE PROPOSAL

- Assignee has over 30 years of experience in the textile manufacturing and trading domain across the globe with a strong manufacturing facility in India

- Assignee/Applicant of the concerned IP intends to license/sell the associated US Patent Rights

- Assignee would be keen to share the technical know-how along with implementation details for development of the solution

- Assignee would also be open to any other facet of IP monetization associated with this IP.

CONTACT US

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