

Decision Making with Analytics- Emperor Akbar “Spice it up My Way”

Prologue

A brand of Samex India Pvt. Ltd, Emperor Akbar Cardamom is the only brand of authentic, GI tagged Alleppey Green Cardamom from India. Known for the superior flavour & aroma, Alleppey Green Cardamom also contains high level of nutrients and medicinal properties. Emperor Akbar enjoys the support of the Spices Board of India - an assurance of our commitment to ensure the enriching goodness of the world's best cardamoms.

Mr. Hemen, MD Emperor Akbar, was still not happy, an entrepreneur to the core, he was having a constant dilemma, of how to become “Atmanirbhar”. Today he was completely dependent on his sales & distribution with major Ecommerce portals in India. His profitability being, challenged every time by various costs which had to be borne by him for being a partner to these large Ecommerce companies. True it had its own benefits, reach, brand awareness & also that kick start to sales. During these times, he was looking out for solutions, we he met Mr. Venkatesh, Founder & CEO, Tathwamasi Inc in one of the TIE events.

Venkatesh started to share his knowledge & experience about data Analytics, when Hemen interrupted - he asked - “can you help me take a decision?” Venkatesh chuckled “of course, we help companies make data driven decisions sir. Please go on”.

Mr Hemen started- “I have been doing spices trading since last 15 years, we also export to USA, UK, Middle East & Australia. In India, we have been working with various channel partners offline to distribute our products.”. Where is the challenge? Venkatesh asked. “The challenge is that there are huge costs in building a distribution channel also, the ecommerce companies are really driving the sales but, with their deep pockets, they negotiate hard on pricing, which results in reduced profit margins. I am not sure if my own ecommerce portal can be built for selling these online.

The other challenge is, I am not sure where my products, sell, who buys, which SKU’s are the most profitable. In short I don’t have a clear understanding of the Consumer Behaviour”. Hemen concluded.

Venkatesh after a patient hear said, Data driven approach can help you solve this issue. We can help, let me analyse your current sales trend & we shall guide you on what needs to be done”. The next Monday, the team assembled at Mr Hemen office for a detailed discussion on the problem statement.

There were too many questions which he sought answers & thus take decisions. Emperor Akbar has been a wholesaler & trader of best quality spices in India. They are the best in cardamom. Their target market is both B2C & B2B

Key Details

Advantages & Disadvantages of Alliance with Major Ecommerce Portal V/s. Self-Owned

Sr.no	Major Ecommerce	Own Ecommerce
1	Reach is fast & quick leveraging the brand equity of Ecommerce Player	The brand presence needs to be driven consistently
2	Technology adoption – quicker & seamless	Cost of acquisition is lower than channel engagement
3	Product Duplication is possible; you are just another vendor	Data is Safeguarded
4	Data Privacy can be compromised	Technology upgrade may have increased costs over time
5	Increase in Costs – Commissions & Other Charges	Infrastructure readiness required to manage Ecommerce operations – An Additional Cost to be incurred

Target Audience

1. B2C – Housewives, families who use large quantities spices in their daily food. SEC A, affluent & predominantly from upper middle class.
2. B2B - Five Star Hotels, Chefs, Caterers, Departmental Stores, Retail large units
3. They do the distribution currently with various E-Com companies – IndiaMart, Amazon, Alibaba etc. Currently they have average of 450 SKU's sales per month across all E-Commerce sites.

The SKUs are as below, there are three varieties of cardamoms being traded & sold by Emperor Akbar

1. EAC 100GMS / EAC 1KG /EAC 250GMS / EAC 500GMS / EAC COMBO
2. Green 100g /Green 1Kg / Green 250g /Green 500g
3. Red 1Kg /Red 250g /Red 5Kg

The Key challenges

1. Not able to get the right price for their products from the Ecommerce entities.
 2. An opportunity loss on reduced margins on profitability.
 3. They had limited knowledge about their end customers; consumer behaviours, demography psychography etc.
 4. Their brand recognition was getting affected due to the Ecommerce Player
 5. Huge Threat on duplication of products & customer experience by the Ecommerce giant thus lose individuality & price leadership
1. High commissions led to reduced operational margins.
 2. Business Model shift was quickly shifting to online because the offline market is highly unstructured esp. in India. The other markets like Europe & USA already were fairly settled on online orders and shipments with Emperor Akbar
 3. SKU breakup & Insights were missing for planning & forecasting inventory & revenue

The problem statements

1. "How can I decide whether to continue with all the Ecommerce aggregator, keep sharing my revenues on sales, or can I start my own portal?"
2. How do I find out consumer profile, SKU tracking, competition tracking for my business?
3. How can I leverage the Data Science for scaling my business?

The case questions

What should Emperor Akbar do?

1. Do they continue with the existing Ecommerce Sites for business or launch their own E-Commerce Portal?
2. How can they implement the Data Science Process for their business?

The Industry scenario – Data Analytics & Ecommerce in India.

Data Analytics

The Big Data and Analytics industry has gone through major disruptions in the last five years. What was once a competitive edge — advanced analytics is no longer limited to a few leading companies or data-intensive industries. There is also a concerted shift in IT spending with the amount of spending related to analytics and BI going up significantly. The 2018 report, estimated by Analytics, Data Science and Big Data industry, it is stated in India to be \$2.71 billion annually in revenues. In 2019, the analytics industry has grown to \$3.03 billion in size and is expected to double by 2025. The domestic analytics industry has grown by 12% this year. The overall Data Analytics industry in India is currently estimated to be \$3.03 Billion annually in size. This is the overall consumption of analytics within Indian organizations while the outsourcing market is projected to be bigger, the analytics industry is expected to double in size by 2025. Overall, 36% of the analytics market size in India comes from Finance & Banking. Marketing & advertising comes second at 25%, followed by the E-commerce sector at 15% of analytics revenues in India

Ecommerce

E-commerce has transformed the way business is done in India. The Indian E-commerce market is expected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion as of 2017. Much of the growth for the industry has been triggered by an increase in internet and smartphone penetration. The ongoing digital transformation in the country is expected to increase India's total internet user base to 829 million by 2021 from 636.73 million in FY19. India's internet economy is expected to double from US\$ 125 billion as of April 2017 to US\$ 250 billion by 2020, backed primarily by E-commerce. India's E-commerce revenue is expected to jump from US\$ 39 billion in 2017 to US\$ 120 billion in 2020, growing at an annual rate of 51 per cent, the highest in the world. The standard definition of E-commerce is a commercial transaction which is happened over the internet. Online stores like Amazon, Flipkart, Shopify, Myntra, eBay, Quirk, Olx are examples of E-commerce websites. By 2020, global retail e-commerce can reach up to \$27 Trillion. Internet penetration in India grew from just 4 per cent in 2007 to 52.08 per cent in 2019, registering a CAGR of 24 per cent between 2007 and 2019. The number of internet users in India is expected to increase from 687.62 million as of September 2019 to 829 million by 2021.

List of Exhibits & Tables

Exhibit -1 Key Levers in Ecommerce in India



Exhibit-2 – Ecommerce Scenarrio In India

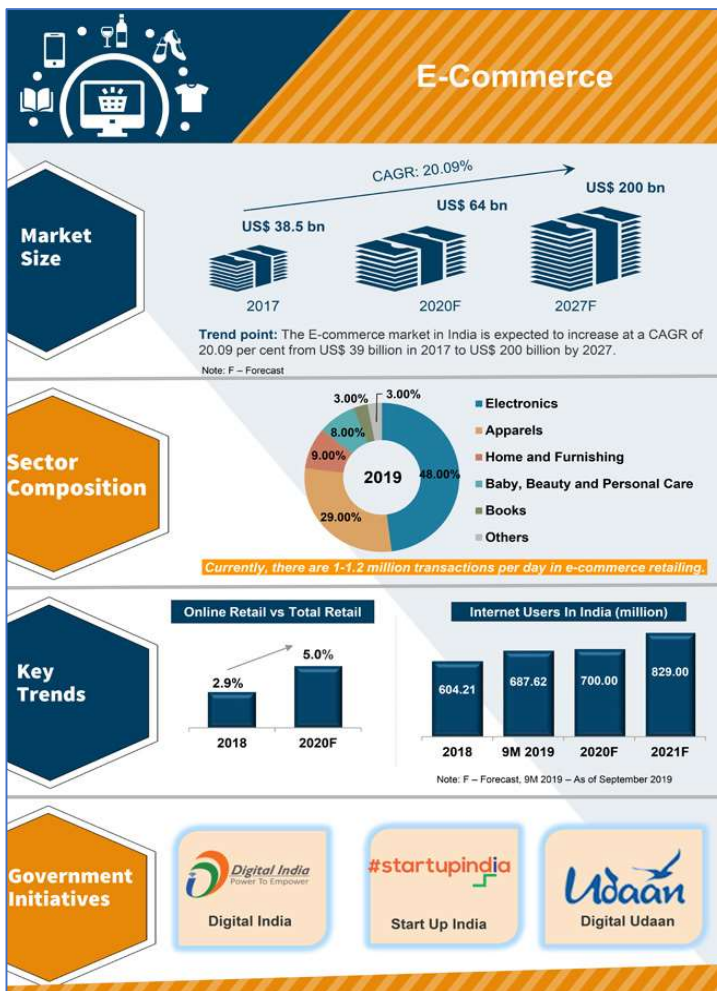


EXHIBIT-3 – Key Digital Numbers – India

Key digital numbers - India 2020		
Population	1.37 B	vs 2019 + 1.0 %
Mobile phone connections	1.06 B	- 1.4 %
Internet users	687.6 M	+ 23 %
Active social media users	400.0 M	+ 48 %

Source: We Are Social, Hootsuite, Jan 2020

EXHIBIT – 4 – Key Ecommerce players in India



EXHIBIT 5 – The Data Science Process

1. Identify the question - Time taken – 10% - 20%
 - a. It is “the” crucial process in Data Science
 - b. Ask the stakeholders what exactly they need from this project?
 - c. What are their key business challenges?
 - d. What are the questions they need to find answers for?
 - e. What are their key objectives for soliciting a data science needs?
 - f. These questions & objectives needs to be tabulated and agreed upon.
2. Prepare the Data - Time taken – 60% - 70%
 - a. Identification of various data sets, databases required to solve the challenges. It involves meeting key persons in various departments to identifying & understand where and how the data is captured & stored.
 - b. This phase requires understanding of databases, & statistics. The understanding of databases helps in extracting data from various sources the understanding statistics helps in learning how the data is distributed in the data set. It includes, data scrubbing, data cleaning, data validating.
3. Analyse the Data - Time taken – 10- 20%
 - a. It is the interesting phase of the data science project
 - b. It involves analysing the data using various tools & statistical techniques.
 - c. This phase is important and quickest, if the first two phases are done in detail.
 - d. It involves data modelling, data training, data testing & gathering insights. Various techniques are applied in this phase’s basis the objectives & the data set prepared.
4. Visualizing the data - Time taken – 10- 20%
 - a. Once the data is analysed, the findings needs to be presented to the stakeholder.
 - b. This phase is to prepare and make the data presentable through various visualizations techniques available.
 - c. Data Visualizations are key to make the stakeholders understand the data in a simple & effective way.
 - d. Data visualizations like story board, dashboards, charts & reports help in quick understanding of the findings for taking prompt decisions.
5. Presenting your findings - Time taken – 10- 20%
 - a. The last part again often ignored by many data scientists
 - b. This phase involves discussing and presenting the findings to the stakeholders.
 - c. This phase includes identifying the key decisions taken by the stakeholder basis the insights.
 - d. The various options for these decisions are mitigated & final decision is considered.
 - e. Presenting the take away; discussing with the client for decision making.

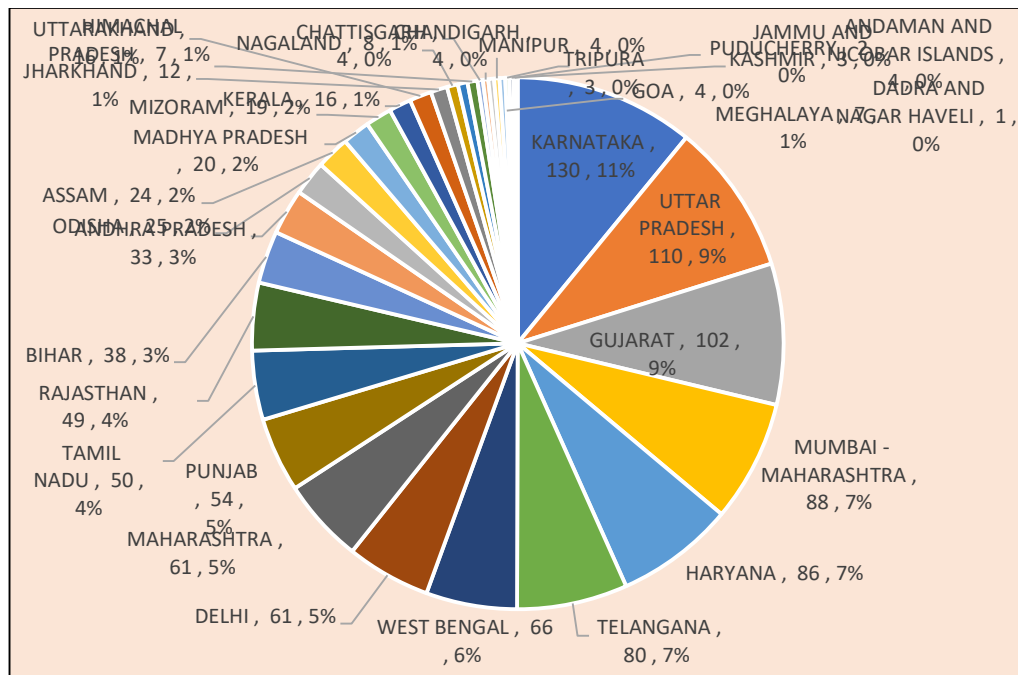
Tables & Graphs – Emperor Akbar

1. TABLE - A – Data fields available

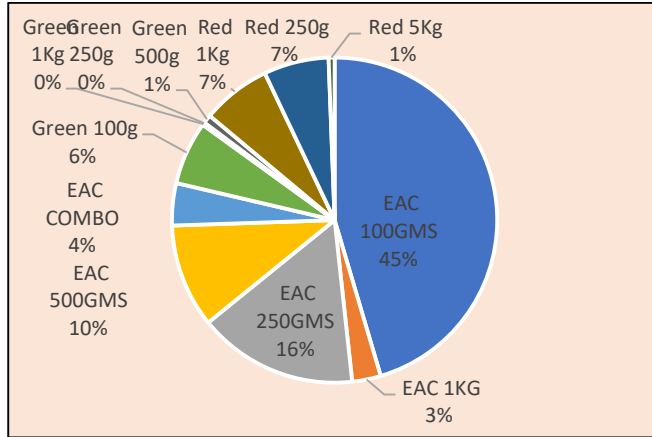
Sr. No
Invoice Date
E-Com- Inv. No.
E-Com- Inv. Date
Processing Date
Month
Day
Order ID

Order ID
Customer Name
Customer Address & Pin Code
Place
Product Name
Weight
Quantity
Total Weight
Payment Mode
Shipping Area

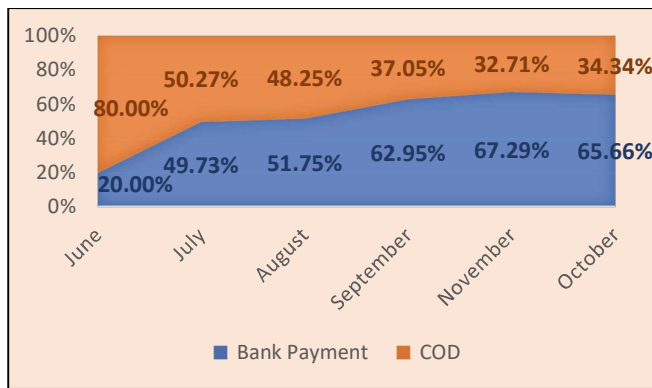
2. EXHIBIT 6 Sales by Geography



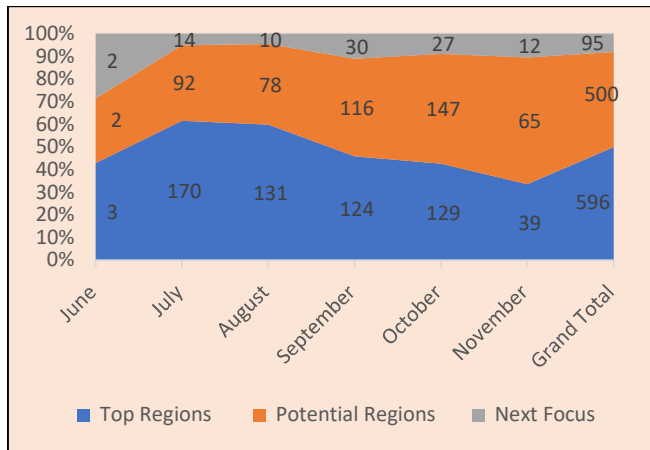
3. EXHIBIT 7 - SKU wise Sale



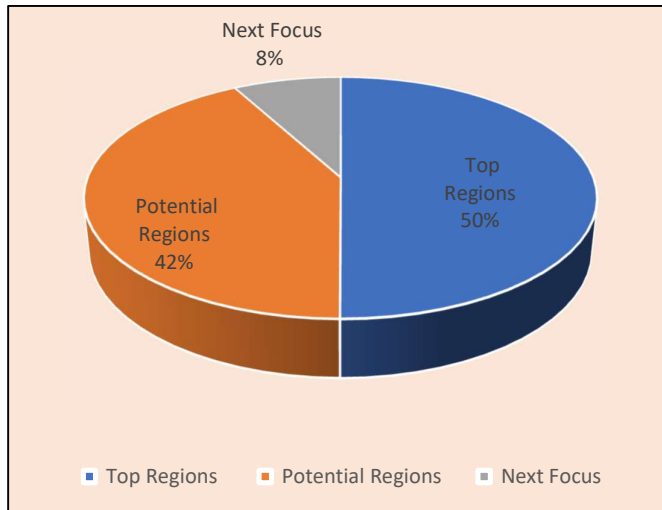
4. EXHIBIT 8 - Payment Mode Transitions (Last 6 months)



5. EXHIBIT 9 Market Segmentation Transition (last 6 Months)



6. EXHIBIT 10 - Pie of the Market Segment



References

1. URLs & Links

- a. <https://analyticsindiamag.com/analytics-and-data-science-india-industry-study-2020-by-aim-analytixlabs/>
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- b. Fundamentals of Business Analytics RN Prasad Seema A ISBN – 978-81-265-379-1

3. Research Papers

- a. Data Analytics at DBS Group Audit: The future of auditing is auditing the future: - Prof Sarika Mahajan - SMU-016-0023