ORDER PROCESSING & E-COMMERCE USING JS NODE, AI & DATA SCIENCE

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ABSTRACT: THE PAPER HIGHLIGHT SOME GUIDELINES TO CREATE AN E-COMMERCE STRATEGY OR TO REVISE THEM. AS WE ALL KNOW CONSTANT INNOVATION IS KEY CHALLENGE FOR E-COMMERCE. SO, IT BECOMES VERY IMPORTANT TO DEVISE SOME OF THE STRATEGIES FOR SUCCESSFUL AND STABLE BUSINESS. AND IF THESE STRATEGIES ARE BEING APPLIED IN WELL EFFECTIVE MANNER THEN IMMEDIATE BENEFITS CAN BE DERIVED IN EVERY STAGE OF THE SUPPLY CHAIN WERE IN TERMS OF COST SAVINGS, EFFICIENCY, AND ENHANCED PROFITABILITY. SO IT IS THE NEED OF THE HOUR AND CONSIDERED TO BE A NORMAL BUSINESS PROCESS. AND IN E-COMMERCE IT IS VERY IMPORTANT TO UNDERSTAND DATA WITH RESPECT TO FUNCTIONALITIES OF E-COMMERCE, RIGHT INVESTMENT AND CUSTOMERS.

CUSTOMERS

WELL TODAY THE WORLD IS SEEING A CONSTANT SHIFT IN THE BUYING BEHAVIORS OF THE CUSTOMERS AS WELL. AND THIS MADE THE INVESTORS ARE BECOMING CAUTIOUS TO INVEST MONEY INTO INTERNET VENTURES. BUT THAT DOESN'T MEAN INVESTOR ARE HELPLESS, WE UNDERSTAND THAT THE INFLOW OF MONEY IS RESTRICTED AND THERE IS A NEED TO INJECT MONEY IN ABUNDANCE. SO THIS PAPER AIMS TO HELP THE COMPANIES REALIZE THEIR FULL POTENTIAL AND TO MAKE THEM UNDERSTAND THAT THEY NEED TO CONSTANTLY DEVISE A STRATEGY AND PLAN TO HAVE A SUCCESSFUL BUSINESS.

INTRODUCTION

With rise in Globalization, Constant improvement & Innovation in technology and yearning for ease of business online portals is Challenge and demand. And in India, it is still considered to be a taboo to do business on an ONLINE PORTAL. I am not saying that the mindset is not changing but still, there is a long way to go. As we think a lot about Pros & Cons rather than Strategy. The biggest concern for any business is to minimize cost, and E-commerce platform provides us with lower cost and ease of business. In order to maintain profitability and customer satisfaction area of concerns are

- ➢ Region and culture,
- ➢ Web content accessibility,
- ➢ Ease of use,
- ➢ Secure authentication, payment, fraud detection, trust,

➢ Performance, stability,
➢ Technology,
➢ Convenience.

And here is our rescuing technology- AI & Data Science for strategies. Today in many ways AI is enabling companies to sense, predict, and automate and ultimately creating hassle free e-commerce businesses across the platform.

RELATED WORK

Internet

Main drive of E-Commerce Business. Today Web is no longer solely a supply of knowledge however it's become a really important tool for looking, learning, act and even obtaining service directly from service providers from micro service to macro level - Plumbers, carpenters, specific service handlers, doctors, technician etc. Web has major influence on the planet as a results of it'll serve billions of users everywhere the world . So web has opened the door for e-commerce.

Now we've operational platform and now we'd like medium to try to to business. And here comes the role of Autonomous vehicles and logistic handling devices.

Autonomous Vehicles

An autonomous vehicle could also be a motor vehicle that uses AI, sensors and international positioning system to coordinates to drive itself while not within the active mode of intervention of a personals of operational technocrats and Also Customers.

Social Media

By keeping a track of this illustrative platform with reference to intended customers and act consistent with what an individual is thinking to shop for , where he's interested, what he or she often looks for. Hence its role isn't hidden in the least . A venture for Research and development.

Payment Gateways

A digital payment entrance is an e-commerce application service supplier that authorizes Mastercard payments for e-businesses, on-line retailers, bricks and clicks, or ancient brick and mortar. the world in today's state of affairs is reworking from money to digital cash then there is a requirement of payment gateways for property future ecommerce.

METHODOLOGY

We have understood the problem E-Commerce is facing- Customer Base Strength, And Better suitable Strategy. And We have addressed this By Creation of Online Website through JS with Additional technology - AI & Machine learning.

Companies if focus more on data and AI then it can enhance ecommerce features, functions, and performance and overall operations.

Today Companies need to assess & Analyze their data and understand where their data provides differentiation and that's where Data Science comes.

Once the value within your data is understood, AI can be used to better understand relationships between data sets, predict what will happen next, and/or automate processes.
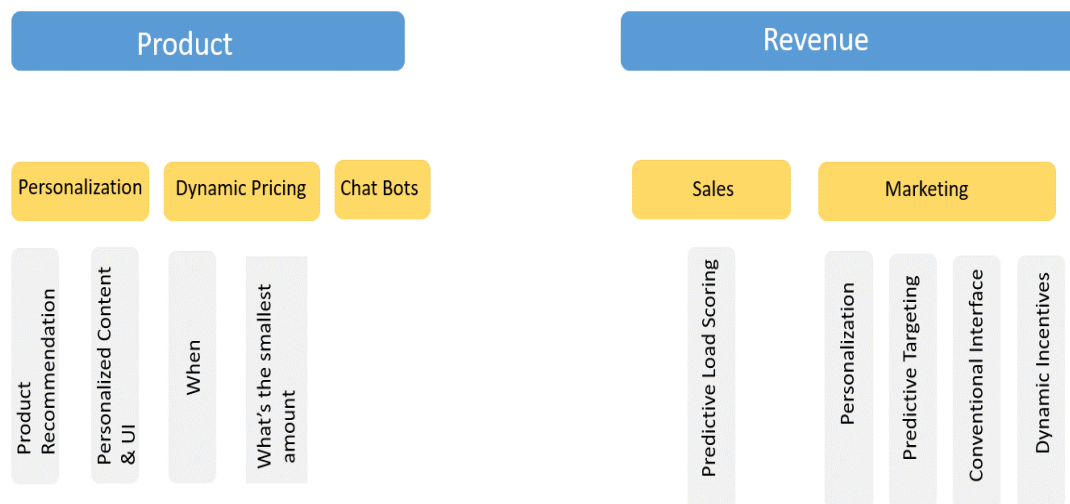
1. Customer Psychology & Behavior, With Respect to Purchase, Analysis

Product Recommendation through Forecasting

We can now collect and process petabytes of data and append Large-consumer purchase behaviour.
- ➤ Go by purchasing past records.
- ➤ Tracking Social media
- ➤ Web analytics through surfing time of user. So, correlate them to create Hyper-Personalized Stuff.

How
- ➤ Observe big Commerce Insights "Products Frequently Purchased collectively"
- ➤ Constitute those products to the proper product page.
- ➤ Tools or Apps like Beeketing and utilize similar apps.

Personalization: Customer's Product orientation

A Well personalization can increase conversions, engagement, and decrease time to transaction.

How
- ➤ Online retailers can track web behavior across multiple touch points.
- ➤ Use Date & the next time a user is on your site shopping for a new mobile or any commodity, you can send a push notification Message on their phone with a discount code for the new line of products.
- ➤ Tools: For instance, Tools and apps like Choice AI, Smile.io

Dynamic pricing

It is a strategy based on which retailers that change the price of the product based on supply and demand.
Dynamic pricing algorithms are an emerging field in artificial intelligence and ecommerce and using them has its benefits.

How

➢ Append customer data, competitive pricing data, and sales transaction data to predict when to discount, what to discount, and dynamically calculate the minimum amount of discount needed to ensure a transaction.
➢ Tools: Tools like SellerActive, Price2Spy, and FeedVisor automate dynamics repricing

Artificial Agents

➢ Artificial agents and chatbots are a computer based program designed to simulate conversations.
➢ They Facilitate simple transactions (like answer basic questions, set appointments, or triage) And provide basic decisions.
➢ Use these to interface with customers on ecommerce sites, inform customer service agents the way to service inquiries, and even facilitate sales.

2. Products Related: Mainly Three Categories of Use case Enhancements

Price and Product Optimization
➢ Categorize In-store Products to maximize Sales

Radical Optimation

➢ Personal Product Recommendations & Advertisement

Logistic Enhancement

➢ Optimize Logistics, Procurement timing & Inventory distribution across warehouse

3.   Data Understanding & Data Science

Undoubtedly in E-Commerce there is lot of data and Just Like any other natural Resources Data needs to be mined and refined for Value.
And Once the value within your data is understood, AI can be used to better understand relationships between data sets, predict what will happen next, and/or automate processes.So,it's easy to Collect Data but having strategy to utilize it will be better.

How

➢ Analysis What Happened? (Detailed Analysis) - Why Did It Happen? (Scrutinized Analytics) - What Will Happen? (Predictive Assessment) - How can we Make it Happen? (Suggestive Analysis).
➢ In Short,we go By - Hindsight through Insight toward Foresight

Differentiation of Data

➢ Lagging: Business not understanding what kind of data it has.
➢ Limited: Limited Functional Data like No Merging of Datasets and similarly.
➢ Functional: Important functional Data which can be automated
➢ Mature: Well Documented Business Logical Data

Enrich Data and Infrastructure to Support it.

➢ By the use of Differentiate Data Classification Tools So we have Embed these AI oriented Strategy in our coding modules in E-Commerce website & We are dead sure about the difference.

CONCLUSION

If companies integrated above strategies in their E-commerce business then they can see Economical benefits and Optimization in various stages of Businesses.

➤ Enhancing products.
➤ Making better decisions.
➤ Informing the creation of new products.
➤ Optimizing internal processes.
➤ Identifying new markets.
➤ Automating workflows.
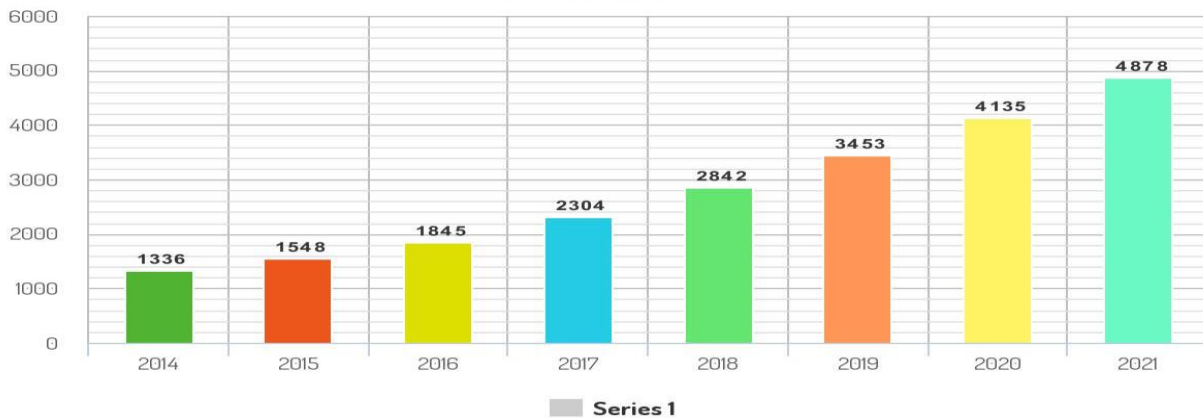➤ Optimization of Marketing & Sales

FUTURE SCOPE

By the Use of AI &Machine Learning there are opportunities for companies to better serve customers, understand demands, and offer better products or experiences with less guesswork should invigorate all businesses.

And if you take the surveying data retailers that have implemented personalization strategies see sales gains of 6-10%, a rate two to three times faster than other retailers, according to a report by Boston Consulting Group (BCG).It could also boost profitability rates by 59% in the wholesale and

Retail industries by 2035, according to Accenture.

RETAIL E-COMMERCE SALES WORLDWIDE FROM 2014 TO 2021(IN BILLION U.S DOLLARS)

eMarketer Statista 2018

Year	Sales (Billion U.S Dollars)
2014	1336
2015	1548
2016	1845
2017	2304
2018	2842
2019	3453
2020	4135
2021	4878

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But at the same time AI has cons too if not handled carefully.

➤ *Lack of Vision*
   How to Utilize AI to drive ecommerce & How to Execute.
➤ *Expertise Shortage*
   Machine learning require skill sets of Technology handlers precisely Data Scientist.
➤ *Bad Data*
   Qualitative Input Data produces Limited AI Value (Extracted from Output Data) So lack of resources should be identified closely.

By these strategies more than 80% Companies can obtain or sustain competitive edge over others if applied effectively.And also new studies projected that the worldwide retail E-Commerce sales can reach a brand new high by 2021. Ecommerce businesses ought to anticipate a 265% rate of growth, from $1.3 trillion in 2014 to $4.9 trillion in 2021. This shows a way forward for steady upward trend with no signs of decline.

ACKNOWLEDGEMENT

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