**Understanding Trends**

**and Insights :**

Comprehensive Data Analysis of City Mall Online Sales in Financial Year 2022

*Ritesh kumar*

*Lovely Professional University*

*Punjab, India*

**Abstract**—

The transition of city malls to the online sphere marks a significant shift in the retail landscape. This report explores the implications and strategies associated with city malls venturing into the digital realm. This research report delves into the analysis of city mall’s online sales for FY’ 22 , aiming to uncover trends and insights that shed light on consumer behavior, market dynamics, and economic factors influencing retail performance during **lockdown environments**. Through comprehensive data collection and analysis, this report offers valuable insights for retailers, mall operators, investors, and other stakeholders seeking to understand the evolving landscape of city mall sales.

1. **Introduction:**

The transition of city malls to online platforms represents a strategic response to the changing demands of modern consumers. No longer confined to the physical confines of traditional shopping centres, consumers now seek convenience, accessibility, and personalized experiences in their retail interactions. By establishing a digital presence, city malls aim to meet these evolving expectations while expanding their reach to a broader audience of tech-savvy shoppers. However, the journey from physical to digital retail presents both challenges and opportunities for city malls. On one hand, the online landscape offers unprecedented opportunities for growth, allowing malls to tap into new markets, drive sales, and enhance customer engagement through innovative digital channels.

This research aims to provide a comprehensive analysis of the city mall online sales phenomenon, offering insights into consumer behavior, market dynamics, technological innovations, and strategies for success in the digital retail landscape.Through rigorous research, data analysis, and case studies, this report seeks to illuminate the opportunities and challenges associated with city mall online sales, guiding stakeholders in their quest to adapt, innovate, and thrive in an increasingly digital world.

**A. Data Visualization**:

Key areas of exploration include:

1. **Consumer Behaviour and Preferences**: This report examines the evolving preferences and behaviours of customers, including their shopping habits and attitudes towards online retail channels.
2. **Market Dynamics**: By analyzing market trends and competition, this report uncovers the gender influence on consumer preferences and purchasing habits in the context of online retail.
3. **Age Factors**: The report delves into significance of age demographics in shaping consumer preferences and purchasing behaviour in online retail.
4. **Seasonal Variations and Trends**: Through seasonal analysis, this report identifies patterns and trends in city mall sales across different periods of the year, highlighting peak shopping seasons.
5. **Implications and Recommendations**: Drawing on the insights gleaned from the analysis, this report provides actionable recommendations for retailers, mall operators, and other stakeholders to optimize sales performance, enhance the shopping experience, and to navigate the challenges and opportunities in the dynamic online retail landscape.

**B. Research Questions**:

The study focuses on delivering the responses to the following Research Questions (RQ).

RQ 1: Orders vs Sales demographics of financial year 2022?

RQ 2: What are the top 5 buying states on financial year 2022?

RQ 3: What is the Age Group (Teenager, Adult, Senior) vs Gender (Male, Female) share in annual sales?

RQ 4: Which online platform caters most traffic and sales share per channel?

RQ 5: Who won buying race- male or female?

RQ 6: What is the status of orders annually?

1. **Proposed Methodology**:

Created visualizations on 120 years of Olympics History which describes about 120 years of what happened in the Olympics. The study used both Tableau and R programming to show how both tools are useful in making dashboards and visualizations.

1. **Dataset**

Kaggle provided the dataset. Kaggle is a data science and data hobbyist network. Users can use this platform to find and publish data sets. Here are the specifics of the data set I chose. There are 31048 rows and 19 columns in the file Citymall\_2022\_data.xlsx. Each row represents a single customer with unique order id and other information.

1. **Results and Discussions**:

This section shows solutions for the Research Questions raised in the data analysis.

RQ 1: Orders vs Sales demographics of financial year 2022?

\*Amount is represented in million Rupees.

Conclusion: Buying attitude is more in some festive seasons like March, but low in others like Oct-Nov. Rising Quarters can be seen forming twice a year.

\*Rising Quarter refers to the quarter of the year which shows steady increase in graph.

RQ 2: What are the top 5 buying states on financial year 2022?

\*Amount is represented in million Rupees.

Conclusion: Maharashtra, Karnataka, Uttar Pradesh, Telangana, Tamil Nadu (in decreasing order) are the five most buying states in FY’22.

RQ 3: What is the Age Group (Teenager, Adult, Senior) vs Gender (Male, Female) share in annual sales?

\* Adult - Age >=30, Senior - Age >=50, Teenager - Age<3

Conclusion: Adult Women have the most buying attitude in FY’22, on the contrary Senior Men have the least. Among Teenagers, Girls are more prone to shopping than boys.

RQ 4: Which online platform caters most traffic and sales share per channel?

Conclusion: Amazon, Myntra, Flipkart, Ajio, Meesho, Nalli (in decreasing order) are some prominent online shopping channels. Among them, Amazon had the most contribution.

RQ 5: Who won buying race- male or female?

Conclusion: Clearly, women are ahead of men. According to data, total buying amount of women in FY’22 through this city mall is 13593769 Rs., while men have 7618604 Rs.

RQ 6: What is the status of orders annually?

Conclusion: 92% contributes to successful delivery, while remaining 8% shows the negative experience of customers.

1. **Desicions:**
   * Women are more likely to buy compared to men (~65%)
   * Maharashtra, Karnataka and Uttar Pradesh are the top 3 states (~35%)
   * Adult age group (30-49 yrs) is max contributing (~50%)
   * Amazon, Flipkart and Myntra channels are max contributing (~80%)

Target women customers of age group (30-49 yrs) living in Maharashtra, Karnataka and Uttar Pradesh by showing ads/offers/coupons available on Amazon, Flipkart and Myntra.

1. **Conclusion**

In conclusion, the journey of city malls into the realm of online sales represents a pivotal moment in the evolution of retail. Throughout this research, we have explored the multifaceted dynamics at play, delving into consumer behavior, market trends, technological innovations, and strategic imperatives shaping the landscape of digital commerce.

However, realizing this potential requires a strategic approach and a willingness to embrace change. City malls must invest in robust e-commerce infrastructure, optimize their digital presence, and tailor their offerings to meet the diverse needs and preferences of online shoppers. Buying attitude is more in some festive seasons like March, but low in others like Oct-Nov. Rising Quarters can be seen forming twice a year. Maharashtra, Karnataka, Uttar Pradesh, Telangana, Tamil Nadu (in decreasing order) are the five most buying states in FY’22. Adult Women have the most buying attitude in FY’22, on the contrary Senior Men have the least. Among Teenagers, Girls are more prone to shopping than boys. Amazon, Myntra, Flipkart, Ajio, Meesho, Nalli (in decreasing order) are some prominent online shopping channels. Among them, Amazon had the most contribution. Women are ahead of men. According to data, total buying amount of women in FY’22 through this city mall is 13593769 Rs., while men have 7618604 Rs. 92% contributes to successful delivery, while remaining 8% shows the negative experience of customers.

In essence, city malls must remain vigilant to the challenges and complexities inherent in the online retail landscape, united in vision to shape a world where city malls stand not just as monuments of commerce, but as beacons of innovation, inspiration, and inclusivity for generations to come.