

Real Time Monitoring

In simple words, real-time monitoring is the delivery of continuously updated data about system or any event.

In this world of everything going online, Online Travel Agencies (OTAs) has become so popular. Travelers nowadays compare the hotel prices online in order to get the best prices. This makes the competition more tough between the hotels in terms of prices fierce. For convenient and precise information on room prices, real- time monitoring system has been proposed.

This system finds the best price and provides reference room price.

This results in improving existing travel and hotel reservation services for travelers.

System for monitoring hotel information:

It follows four steps:

- Data collection
- Data analysis
- Information visualization
- Notification
- Data Collection:

A crawler program is used to collect data from the data source .

- Data Analysis:

Then the data is analyzed. After querying the database, hotel information such as type of number of rooms, stay period etc. are integrated. Then the data is compared to obtain total number of rooms sold , rate changes etc. and the information so received is updated on the website in about every 30 mins.

- Information Visualization:

The result of the analysis is shown on the website which makes it easy for the manager to check the sales of competitors hotel rooms.

- Notification:

The change in competitors information on room prices and number of rooms are notified immediately through function on the website.

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Feedback System

Hotel operators invest huge amount to satisfy customer needs. It's a well said philosophy "Atithi Devo Bhava " meaning " the guest is God". i.e, a customer's satisfaction on our performance has a huge importance.

But what does this term customer feedback really means?

Let us look into it first.

Customer feedback is the information provided by the client about whether they are satisfied or dissatisfied with the services or in simple it is just their general experience.

Customer opinion is must in order to improve the services and provide people with the best.

It is important to use a Guest Feedback Software or Feedback System in a hotel in order to easily collect feedback data with the help of surveys and use them to make decisions which could enhance the guest's satisfaction.

Hotels use different feedback systems to collect information from their guests. Some common method includes:

- Comment cards- Guests can fill these cards during or after their stays, providing feedback to the hotel about their experiences.
- Online surveys- Hotels perform electronic surveys after guests stay asking them for feedback.
- Online review platform- Website such as Google, Yelp allow guest to review and rate the hotels.
- Social media- Guests often share their experience and opinions on social media platforms such as Facebook, Instagram etc. while tagging the places they stay along with their photographs.

Here the question arises that why this feedback system so important for hotels?

Let us understand this first.

With the increasing technology, digital feedback system is installed at hotels, where you can receive feedback through tablets during guest check-in or check-out.

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It has following advantages:

- Feedback from all touchpoint which help to improve services of the hotel.

- Get real-time feedback
- Resolve issues faster
- Track staff performances
- Manage and compare locations

Improve customers satisfaction.



CUSTOMER BEHAVIOUR ANALYSIS

1.What is customer behavior analysis?

A customer behavior analysis is a thorough investigation of how customers engage with your company. Using qualitative methods, a customer journey and provides insight into what's driving consumer behavior.

2.Why is customer behavior analysis important?

The goal of customer behavior analysis is to uncover ways you can better suit your conversion rate.

Specifically, the results of buyer behavior often help with things such as:

- a. Predicting customer value. The better you understand your customer segmentation, the more easily you'll be able to optimize your operations to focus on your most profitable segments.
- b. Personalizing customer experience. When you understand your customer base better, you can build bespoke customer journey maps for your most profitable customer segments to give them a more targeted, optimize-for-them experience, which will increase conversions.
- c. Improving customer retention. Understand your behavioral data will help you identify what brings existing customers back, thus increasing customer satisfaction and reducing churn.

3.How to conduct a customer behavior analysis:

- a. Brake your audience into segments
- b. Identify selling points for each segment
- c. Collect as much data as possible
- d. Check the number against your qualitative data
- e. Make change accordingly
- f . Analyze your results and repeat

4. Conclusion

Consumer behavior to the process through which consumers select, buy and use goods or product based on their needs and desires. The process through people buy goods has evolved.

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DATA COLLECTION INTEGRSTION

1.What is data collection integration?

Data integration is the process of combining data from different sources into a single, unified view. Integration begins with the ingestion process. And includes steps such as cleansing, ETL mapping, transformation.

2. Types of data collection integration.

- a. Manual data integration
- b. Middleware data integration
- c. Application-based integration
- d. Uniform access integration

3.Why it is important?

Data integration is so much more than just data synchronization. Business today are collecting vast amounts data from many different sources: transaction, video, social media, and so on. Every second, new data comes into the organization-and for data to be useful, it must be available for analysis at all times. And it allows businesses to combine data existing in different sources to provide users with a real-time view of business performance. By integrating

data from various sources organization can elevate their performance.

- Better decision
- Data integration reduces errors
- Accesses to valuable data
- Improves employee efficiency
- Increase competitiveness

4. Conclusion

Data collection is an essential part of the research process. Whether you're conducting scientific experiments. Market research, or surveys. The methods and tools used for data collection will vary depending on the research type, the sample size required, the resources available.

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EFFICIENT PAYMENT METHODS

VARIOUS PAYMENT METHODS

- The cash payment process was followed a decade back. Now in 2023, things have changed. In the technological era, customers prefer to pay online. Modes of payment in hotel reservations are credit card, debit card, QR code, UPI, pay later, or any other.
- Payment methods are those by which we do our payments in various places . Ex hotels, hospitals, banks, shops etc.
- The cash payment process was followed a decade back. Now in 2023, things have changed. In the technological era, customers prefer to pay online. Modes of payment in hotel reservations are credit card, debit card, QR code, UPI, pay later, or any other.

Credit cards

- Credit cards are the most common payment option for hotels. Why? Because guests have an established line of credit that they can use to pay off their hotel room the next month without having to front the money right away.

- For hotels, it's also a great option because hoteliers can easily place a security deposit on the hotel room for incidentals, which can be harder with cash or a debit card.
- The most popular credit cards for payment are Mastercard or Visa, but there are a wide range of credit cards available. However, many hotels might avoid American Express because of their steep fees.

Debit cards

- A debit card is much like a credit card, except that the guest must have the funds available in their account in order to pay for the room or block the security deposit.
- Unlike a credit card, the funds will be charged immediately and taken from the guest's account in real time. While most people have a debit card, not everyone has a credit card.

Cash

- **Cash is more common for short stays or for 1-2 star hotels.** You won't often see a five-star hotel being paid in cash, but it is possible.
- In the case of a cash payment, be sure to check the higher bills for authenticity, and take the security

deposit in cash too. That way, should there be any incidental fees or damage to the room, you will be covered.

Advantages of different payment methods

- The goal behind different payment options should always be [hotel payment processing](#) that's easy and can be carried out in any phase of the guest journey, whether that be online or offline.
- It's important to be able to **offer flexibility to your guests and automated transactions for your staff** to streamline the operations process.
- Flexibility in terms of payments is also paramount in order to remove any barriers to purchase.
- Furthermore, it is an important part of the customer experience because after choosing your brand, it is essentially the first interaction and transaction a guest has with your brand, so you want to offer as many well-known payment methods as possible to instill the confidence of your potential guests, especially for first-time bookers.

PERSONAL RECOMMENDATIONS

- My personal recommendations are often is to use online payment instead of cash. Because sometimes it is very difficult to carry a lot amount of money . So I am going to talk on online payments option for efficient payments.
- There are several payment methods are there that are as follows:-
- **Credit or Debit Cards:** This is the most common and convenient payment method in hotels. Most hotels accept major credit and debit cards such as Visa, MasterCard, and American Express.
- **Mobile Wallets:** If the hotel supports mobile payments, you can use services like Apple Pay, Google Pay, or Samsung Pay.

Traveler's Checks: While traveler's checks have become less popular over the years, some hotels may still accept them.

- **Prepaid Travel Cards:** These cards can be loaded with a specific amount of money before your trip. They work similarly to debit cards and can be a good option if you want to control your spending while traveling.
- **Room Charges:** If you plan to use various hotel services such as room service, dining, or spa treatments, you might consider charging

these expenses to your room and settling the total bill at check-out.

Customer behaviour

- Definition

Customer behaviour in marketing refers to the actions and decisions that people make when they are purchasing or using products. Customer behaviour towards a product includes everything from the initial decision to buy it, to how they use it and whether or not they continue to purchase it in the future.

- Customer behavior in marketing

Customer behavior is important in marketing because it explains how consumers make decisions about what products to buy when to buy them, and from whom to buy them.

Marketers can develop effective marketing strategies that target the right consumers with the right message at the right time by understanding customer behavior.

Here are some examples of how customer behavior affects marketing:

Segmentation - Customer behavior research helps marketers behavioral segment markets. Marketers can

modify their marketing messages and strategies to better appeal to each demographic by recognizing these segments.

Product design - Understanding customer behavior can also aid in product development. Marketers can create products that better meet consumer needs and preferences by analyzing customer requirements and tastes, leading to increased sales and customer satisfaction.

Pricing Strategies - Marketers can use consumer behavior data to determine the price points at which customers are willing to pay for a product, as well as the pricing strategies most likely to appeal to each market segment.

Branding - Customer behavior research helps in the development of branding strategies. Marketers can create brand messages and strategies that resonate with customer and build brand loyalty by understanding customer attitudes and perceptions of brands.

- Why is customer behavior important?

Studying consumer behavior is important because it helps marketers understand what influences consumers' buying decisions.

By understanding how consumers decide on a product, they can fill in the gap in the market and identify the products that are needed and the products that are obsolete.

Studying customer behavior also helps marketers decide how to present their products in a way that generates a maximum impact on consumers. Understanding consumer buying behavior is the key secret to reaching and engaging your clients, and converting them to purchase from you.

- Types of customer behavior

There are four main types of customer behavior:

1. Complex buying behavior

This type of behavior is encountered when customers are buying an expensive, infrequently bought product. They are highly involved in the purchase process and customers' research before committing to a high-value investment. Imagine buying a house or a car; these are an example of a complex buying behavior.

2. Dissonance-reducing buying behavior

The customer is highly involved in the purchase process but has difficulties determining the differences

between brands. 'Dissonance' can occur when the customer worries that they will regret their choice.

Imagine you are buying a lawnmower. You will choose one based on price and convenience, but after the purchase, you will seek confirmation that you've made the right choice.

3. Habitual buying behavior

Habitual purchases are characterized by the customer having very little involvement in the product or brand category. Imagine grocery shopping: you go to the store and buy your preferred type of bread. You are exhibiting a habitual pattern, not strong brand loyalty.

4. Variety-seeking behavior

In this situation, a customer purchases a different product not because they weren't satisfied with the previous one, but because they seek variety. Like when you are trying out new shower gel scents.

What affects customer behavior?

Many things can affect customer behavior, but the most frequent factors influencing consumer behavior are:

1. Marketing campaigns

Marketing campaigns influence purchasing decisions a lot. If done right and regularly, with the right marketing message, they can even persuade customers to change brands or opt for more expensive alternatives.

2. Economic conditions

For expensive products, especially (like houses or cars), economic conditions play a big part. A positive economic environment is known to make consumers more confident and willing to indulge in purchases irrespective of their financial liabilities.

The customer's decision-making process is longer for expensive purchases and it can be influenced by more personal factors at the same time.

3. Personal preferences

Customer behavior can also be influenced by personal factors: likes, dislikes, priorities, morals, and values. In industries like fashion or food, personal opinions are especially powerful.

Of course, advertisements can influence behavior but, ultimately, customers' choices are greatly influenced by their preferences. If you're vegan, it doesn't matter how many burger joint ads you see, you're not gonna start eating meat because of that.

4. Group influence

Peer pressure also influences customer behavior. What our family members, classmates, immediate relatives, neighbors, and acquaintances think or do can play a significant role in our decisions.

Social psychology impacts customer behaviour. Choosing fast food over home-cooked meals, for example, is just one such situation. Education levels and social factors can have an impact.

5. Purchasing power

Last but not least, our purchasing power plays a significant role in influencing our behavior. Unless you are a billionaire, you will consider your budget before making a purchase decision.

The product might be excellent, and the marketing could be on point, but if you don't have the money for it, you won't buy it.

Segmenting customers based on their buying capacity will help marketers determine eligible consumers and achieve better results.

Data collection

What is data collection?

Data collection is the process of gathering data for use in business decision-making, strategic planning, research and other purposes.

During data collection, the researchers must identify the data types, the sources of data, and what methods are being used. We will soon see that there are many different data collection methods. There is heavy reliance on data collection in research, commercial, and government fields.

Different methods of Data Collection

Primary and secondary methods of data collection are two approaches used to gather information for research or analysis purposes. Let's explore each method in detail:

1. Primary Data Collection:

Primary data collection involves the collection of original data directly from the source or through direct interaction with the respondents. This method allows researchers to obtain firsthand information specifically

tailored to their research objectives. There are various techniques for primary data collection, including:

- a. **Surveys and Questionnaires:** Researchers design structured questionnaires or surveys to collect data from individuals or groups. These can be conducted through face-to-face interviews, telephone calls, mail, or online platforms.
- b. **Interviews:** Interviews involve direct interaction between the researcher and the respondent. They can be conducted in person, over the phone, or through video conferencing. Interviews can be structured (with predefined questions), semi-structured (allowing flexibility), or unstructured (more conversational).
- c. **Observations:** Researchers observe and record behaviors, actions, or events in their natural setting. This method is useful for gathering data on human behavior, interactions, or phenomena without direct intervention.
- d. **Experiments:** Experimental studies involve the manipulation of variables to observe their impact on the outcome. Researchers control the conditions and collect data to draw conclusions about cause-and-effect relationships.
- e. **Focus Groups:** Focus groups bring together a small group of individuals who discuss specific topics in a

moderated setting. This method helps in understanding opinions, perceptions, and experiences shared by the participants.

2. Secondary Data Collection:

Secondary data collection involves using existing data collected by someone else for a purpose different from the original intent. Researchers analyze and interpret this data to extract relevant information. Secondary data can be obtained from various sources, including:

- a. **Published Sources:** Researchers refer to books, academic journals, magazines, newspapers, government reports, and other published materials that contain relevant data.
- b. **Online Databases:** Numerous online databases provide access to a wide range of secondary data, such as research articles, statistical information, economic data, and social surveys.
- c. **Government and Institutional Records:** Government agencies, research institutions, and organizations often maintain databases or records that can be used for research purposes.
- d. **Publicly Available Data:** Data shared by individuals, organizations, or communities on public platforms,

websites, or social media can be accessed and utilized for research.

e. Past Research Studies: Previous research studies and their findings can serve as valuable secondary data sources. Researchers can review and analyze the data to gain insights or build upon existing knowledge.

Data Collection Tools

Now that we've explained the various techniques, let's narrow our focus even further by looking at some specific tools. For example, we mentioned interviews as a technique, but we can further break that down into different interview types (or "tools").

Word Association : The researcher gives the respondent a set of words and asks them what comes to mind when they hear each word.

Sentence Completion : Researchers use sentence completion to understand what kind of ideas the respondent has. This tool involves giving an incomplete sentence and seeing how the interviewee finishes it.

Role-Playing : Respondents are presented with an imaginary situation and asked how they would act or react if it was real.

In-Person Surveys : The researcher asks questions in person. Online/Web Surveys. These surveys are easy to

accomplish, but some users may be unwilling to answer truthfully, if at all.

Mobile Surveys : These surveys take advantage of the increasing proliferation of mobile technology. Mobile collection surveys rely on mobile devices like tablets or smartphones to conduct surveys via SMS or mobile apps.

Phone Surveys : No researcher can call thousands of people at once, so they need a third party to handle the chore. However, many people have call screening and won't answer.

Observation : Sometimes, the simplest method is the best. Researchers who make direct observations collect data quickly and easily, with little intrusion or third-party bias. Naturally, it's only effective in small-scale situations.

The Importance of Ensuring Accurate and Appropriate Data Collection

Accurate data collecting is crucial to preserving the integrity of research, regardless of the subject of study or preferred method for defining data (quantitative, qualitative). Errors are less likely to occur when the right data gathering tools are used (whether they are brand-new ones, updated versions of them, or already available).

Among the effects of data collection done incorrectly, include the following -

- _ Erroneous conclusions that squander resources
- _ Decisions that compromise public policy
- _ Incapacity to correctly respond to research inquiries
- _ Bringing harm to participants who are humans or animals
- _ Deceiving other researchers into pursuing futile research avenues
- _ The study's inability to be replicated and validated

When these study findings are used to support recommendations for public policy, there is the potential to result in disproportionate harm, even if the degree of influence from flawed data collecting may vary by discipline and the type of investigation.

Let us now look at the various issues that we might face while maintaining the integrity of data collection.

Issues Related to Maintaining the Integrity of Data Collection

In order to assist the errors detection process in the data gathering process, whether they were done purposefully (deliberate falsifications) or not, maintaining data integrity is the main justification (systematic or random errors).

Quality assurance and quality control are two strategies that help protect data integrity and guarantee the scientific validity of study results.

Each strategy is used at various stages of the research timeline:

Quality control - tasks that are performed both after and during data collecting

Quality assurance - events that happen before data gathering starts

Benefits -

- Knowledge and Insight
- Evidence-Based Decision Making
- Problem Identification and Solution
- Validation and Evaluation
- Identifying Trends and Predictions
- Support for Research and Development
- Policy Development
- Quality Improvement
- Personalization and Targeting
- Knowledge Sharing and Collaboration



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