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| **AISC2002 - Data Warehousing and Business Intelligence 01**  Module 1 Application Exercise  Group-F  *Charitha Priya Dongari – 500191110*  *Katterapalli Venkata Satya Narayana Reddy – 500190693*  *Rumana Banu Iliyas Ahmed – 500186725*  *Rohan Bhatt – 500187633*  *Shivam Jolly – 500196452* |

1. **Application Exercise:** 
   1. **What information does the data mining generate?**

Data mining takes the information gathered and turns it into information that can be utilized to improve business strategy, such as increasing client loyalty, providing excellent customer service, and increasing overall sales/revenue. In this case, the acquisition of this client data resulted in:

* Doubled response rate of offers to clients
* Consistent customer reward programs/recognition methods across Harrah's different properties
* A brand identity for Harrah's casinos;
* An increase in customer loyalty
  1. **How is this information helpful to management in decision making?**

Based on their clients' choices, gives management a better idea of which business plan or technique they should pursue next. Harrah's Casino stepped up its customer relationship management efforts to emphasize their rewards program and customer service.

* 1. **List the types of data that are mined.**

Harrah’s team launched WINet (Winners Information Network) in mid – 1994. This system collected the information from the transactional slot machine, hotel management, and reservation systems. WINet got details of customer stay, preference data, and demographic data from the hotel’s systems. Whereas, when someone played the slot machine, a loyalty card was inserted, and the no. of plays recorded, and when someone played the table games, that person gave the card to the dealer, the manager entered the data like the number of played games and the betting patterns in every 2 hours. There were other systems like hotel reservation systems that required manual data entry. In the later stages, they also collected data like name, age, social security number, and address besides other things from various sources to make predictions and generate better deals.

* 1. **Is this a DSS or BI application? Why?**

This case study is an example of a BI application. Business intelligence consists of various types of software and programs that helps in storing, analyzing, and acquiring information to make sound business decisions. We know by looking at this case study that Harrah’s made a lot of efforts managing their data. For this, they joined hands with NCR for their Teradata Technology to mitigate the growing customer-related information problem. It helped them make their existing systems better. Earlier, they were providing rewards only after a certain time, but after integrating with NCR, they could do this in real-time. They were generating nearly 20 million offers annually and simultaneously tracking them knowing when they were used. IT helped them promote offers to customers' preferences more accurately. Their sensible use of customer’s information made them stand out.

1. **Application Exercise:**
2. **Summarize of the problem, proposed solution, and the reported results in maximum 20 lines.**

**Summary of the problem:**

Brizio Fashions wanted to see if using social media could help them increase their sales and forecasting, so they turned to BSI for assistance.

**Proposed Solution and the Result:**

Two solutions were proposed by the BSI which are mentioned below and to begin, BSI required a few things from Brizio: access to the client database and price control.

1. **Buzz-based Marketing Experiments:**

In the case of the Retail Tweeters, the BSI investigators illustrate how to employ sentiment analytics on tweets to optimize price and inventory decisions on new production launches ("hot and cold buzz" experiments).  
BSI monitored four new products and used the Attensity tool to do sentiment analysis. Due to the positive buzz surrounding Trentino, BSI boosted the price beginning in week two, providing more margin. Due to the good buzz surrounding Trentino, BSI boosted the price beginning in week two, providing more margin. Because of the bad buzz around Abruzzo, BSI began lowering the price in week two, clearing the bad goods. Brizio saved $27,000 by not reordering replenishments. Trentino handbags were hot, but Abruzzo cosmetics were not, according to a correlation between sentiment analytics on four new product releases and the sales report. BSI increased revenue by $72,000 by leveraging social media analytics.

1. **Viral Marketing Experiment:**

To properly calibrate marketing budgets, BSI employed social network graph analytics to track the impact of fashion influencers. Customer analysis was conducted for the Fashion influencer experiment in order to find high-influence customers who blog or tweet frequently and have a substantial following. Subsequently, an email containing an offer is sent to this group, who will then market to their followers. Another new product introduction, The Florentino Perfume, was picked up and BSI launched a Facebook and Twitter campaign – “Friends of Brizio" for this purpose”. Fashion influencers were sent emails offering free samples, and BSI tracked their trial sample requests, purchases, as well as their email forwarding and tweeting actions. Out of 4,200 fashion influencers, 120 signed up and participated in the social media activities. As a consequence, an average of 120 fashion influencers drove 6.3 incremental purchases on the first level and 18.9 on the second level, with a net profit of $172,000 as a result of this activity.

According to the results of the above trials, social media had an impact on Brizio's sales and forecasting, with the three hypotheses – hot buzz, cold buzz, and fashion influencers – paying off.