

In business intelligence environment, organization often deal with enormous amount of datasets from different sources such as customer interactions, sales and supply chain. Query optimization play a pivotal role in ensuring timely insights. For instance, applying predicate pushdown in ETL processes ensures filtering occurs at the data source, minimizing data transfer and processing cost. Indexing on key dimensions such as customer IDs or time attributes, accelerates time execution in OLAP cubes. Meanwhile, query caching allows frequently used dashboards - like monthly revenue trends or customer churn metrics – to load instantly. Altogether, this techniques reduce system load, enhance response time and improve scalability. This empowers decision makers to access near real time analytics leading to faster data driven strategies actions. Without such optimization. BI systems risk slow performance, missed insights and frustrated users undermining competitiveness (Navathe, 2016)

Bibliography

Navathe, E. R. &, 2016. In: *fundamentals of database systems* . s.l.:pearson, pp. 641-648.