Collaborative Data Analysis Approach for Predictive Dashboard System Using BI tool (qlikview)

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Abstract

In the current competitive world college have to improve their system to predict the future. It is used by Industrial companies seek to manufacture products of higher quality which can be achieved by increasing reliability, maintainability and thus the availability of products. On the other hand improvement in products lifecycle is necessary for achieving high reliability. From this we derived our idea for college and college students to make their future predictable by using predication algorithms and to represent that by using BI (Business Intelligence) tool. It helps to increase performance of organization and easily predict organization trends for next year. It takes complex large data and represent in simple graphics format. Prediction performed analysis to visualization abilities on single screen.

Keywords: - *Business Intelligence, KPIs,*

I.   PROJECT IDEA

The systems propose a new scheme for dashboard system with a prediction technique. In real world terms another name is progress report. A business intelligence dashboard is a data visualization tool that displays the current status of metrics and key performance indicators (KPIs) for an enterprise. Dashboards consolidate and arrange numbers, metrics and sometimes performance scorecards on a single screen. They may be tailored for a specific role and display metrics targeted for a single point of view or department. The dashboard system gives a report then we apply a prediction technique for high accuracy result whish shows us key performance indicator for future. For example, a manufacturing dashboard may show numbers related to productivity such as number of parts manufactured, or number of failed quality inspections per hour. Similarly a human resources dashboard may show numbers related to staff recruitment, retention and composition, for example number of open positions, or average days or cost per recruitment with prediction technique which helps us for decision making in future. This system show the result for college organization with an growth and declined trends with ability of prediction future scope and improve organization growth and declined trend in futures.

II.   LITERATURE SURVEY

Mansi Gera, Shivani Goel IEEE(2015). "A model for Predicting the Eligibility for Placement of Students Using Data Mining Technique". In this paper, propose a model for predicting the eligibility for placement of students using data mining technique. The basic idea of this approach is to many educational institutions want their students to be placed in reputed companies and hence they focus on the academic performance predict students performance. A Study on the Prediction of Students performance by applying straight line regression analysis using the proposed method data preparation and data selection with applying rulese. In this approcch we can analysis student performance but it is more complicated and analysis is based on placement data.

Norlida Buniyamin, Usamah bin Mat, Pauziah Mohd Arshad IEEE (2015). "Educational Data Mining for Prediction and Classification of Engineering Stuents Achievement".This paper highlights the importance of using student data to drive improvement in education planning. Prediction is a technique in education data mining which predicts a future state rather than a current state. Another technique in EDM is Classification which maps data into a predefined class. It is the process of supervised learning to separate data into different class data set. Classification accuracy depends on several factors such as accuracy, speed robustness, scalability and interpretability. It is used to measure the positive and negative occurrence correctly that shape the efficiency of classification model. Needs a lot of data difficult to deal with missing data and does not support mixed variable. It is complex and has less accuraccy of result.

Mohan S Gounder, Vani Vasudeva Iyer, Abdulaziz AI Mazyzd, IEEE (2016). "A Survey on Business Intelligence tools for University Dashboard development". This paper presents a detailed survey on existing Business Intelligence (BI) tools for developing a dashboard in a typical academic setup. As a survey, few most popular BI tools like SpagoBI, Tableau, Pentaho, Qliksense, Jaspersoft and Jedox are considered based on the ease of use, support in terms of training and minimal initial cost. It gives detailed camparison among all BI tool with an its information.

Simon Renaud Deputter, Tengke Xiong, Shengrui Wang IEEE(2013). "Combining collaborative filtering and clustering for implicit recommender system ". Recommender systems are becoming a widespread technology used to promote cross selling. We propose a novel approach in the implicit feedback recommender system domain that combines clustering and matrix factorization to yield good results while using only implicit feedback on users purchase history and without requiring any parameter. We are interested in recommendation with implicit feedback, using the collaborative filtering approach. It propose a challenges in explicit and implicit feedback information from user and it made limited progress in this area. It also propose a clustering, classification method for recommendation validation and we can confidently recommend certain products to a user.

III.   ARCHITECTURAL DESIGN

System in other words is a combination of data warehousing and decision support systems. The figure also reveals how data from disparate sources can be extracted and stored to be retrieved for analysis. The basic BI functions and reports are shown in fig the primary activities include gathering, preparing and analyzing data. The data itself must be of high quality. The various sources of data is collected, transformed, cleansed, loaded and stored in a warehouse. The relevant data is for a specific business area that is extracted from the data warehouse. A BI organization fully exploits data at every phase of the BI architecture as it progresses through various levels of informational metamorphosis. The raw data is born in operational environments, where transactional data pours in from every source and every corner of the enterprise. Therefore, that is the business intelligent organization vision: A natural flow of data, from genesis to action. In addition, at each step in the flow, the data is fully exploited to ensure the increase of information value for the enterprise. The challenge for BI, of course, is to build any organizations vision.
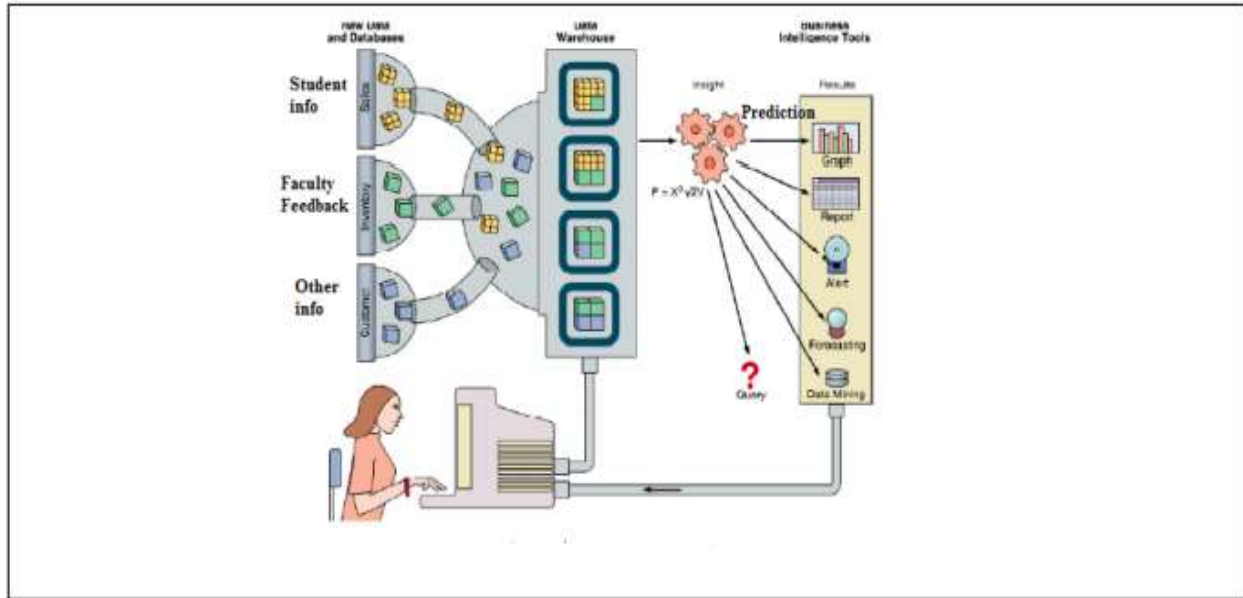
Fig.1 System Architecture

IV.   Scope of the System:-

The system aims to produce a result with an high accuracy which shows growth and declined trends, strong and weak trend with the help of analyzing previous few years of database then with the help of BI tool it process on collected data by using expression, formulas, model an then apply prediction technique which gives result for next year And there is no any data loss because we are taking database as a input. It shows result on single screen and it becomes easy decision making at management level for improvement organizatation performance. For getting more and high accurate result we propose cluster classification and prediction technique. It has secure security.

CONCLUSION: - From the result of this project we can conclude and predict the growth and fall rate of organization. So management committee of organization can decide that what efforts they have to take for organizations growth and generate a dashboard system as department wise and also a generic dashboard of college organization. Also result produce on single screen which is in graphical format.

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