PREDICTING NEW BUDGET PLAN OF THE ORANGIZATION WITH LOGISTIC ALGORITHM

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ABSTRACT:

Financial budget, as a extremely important content of management accounting, is additionally a significant way of business management. Budget basis comes from the financial accounting module, that the execution data source of the budget module is that the financial accounting module's vouchers, accounts, and other data. Both academic and non-academic literature is evolving following the oscillating development of AI and computing power's evolution in their application to finance and financial markets. The boundaries to process encountered after the financial crisis, and successively the recent pandemic bursts have posed new challenges to AI related technologies. The AI intelligent decision-making module uses advanced BI technology (machine learning, processing, artificial intelligence) to integrate with the accounting activities and accounting functions between enterprise.

Keywords: computing, machine learning, financial budget, financial accounting.

I.INTRODUCTION

In any organization, the foremost objective is to maximize profit, by reducing irrelevant expense. In the wake of corona virus crises, companies are rigorously trying to find cost-reduction approaches to maximize profit. As technology grips control, it's incumbent for decision-makers to explore automation-driven cost-cutting methods instead of revisiting employee remunerations. AI offers multidimensional possibilities to lower the price and improves efficiency. Obviously, a number of expenses like salary, rent etc., can't be reduced with the assistance of computing but in some cases, software powered by computer science can partially or maybe fully replace certain employees. A one-time investment in AI software is probably going to be less stressful for your budget than hiring a full-time workers. By reducing cost, upcoming budgets are often planned during a effective manner. Budget planning is that the process of constructing a budget then utilizing it to regulate the operations of a business. the aim of budgetary planning is to mitigate the danger that an organization's financial results are

going to be worse than expected. The emergence of contemporary budget management systems got eliminate the inefficient budget management methods of the past. Enterprises are the most drive of social and economic development, a vital source of national fiscal revenue, and a good guarantee for solving the use problem in an exceedingly country with an outsized population. Financial budget management system mainly has functions like budget preparation, budget adjustment, budget control, and budget analysis. Small- and medium-sized enterprises occupy an oversized proportion of all enterprises in our country. Budget plan not only inject fresh blood into the event of the economic system but also provide an oversized number of jobs and contribute to solving the matter of employment in an exceedingly country with an oversized population. Additionally, through the combination of other applications like bank-enterprise direct connection, the company's economic business activities are directly converted into financial vouchers, and also the budget module is managed and controlled when economic business occurs, in order that these two systems work together to produce corporate management boost.

II.OBJECTIVE

For every organization across industries, the annual budget planning process is essential to keeping them on track and monitoring areas that need improvement, delivering sustainable, profitable growth. Analysing organization's past years incomes and expenses of the organization helps to plan budget plan for upcoming years in a effective manner.

III.RELATED WORKS

The authors claimed that IT investment made up about 50 percent of total expenditure. it absolutely was found that the software development cost formed only a fraction of the complete project cost, and surveys from other journals found that software maintenance cost was adequate to development cost. The authors identified this approaches to estimating software investment cost so identified a framework containing the foremost relevant criteria that might be employed in justifying the investment of software. [1]

Discussed issues per software reuse and the way reusability of software components can drastically reduce the software development timeframe and indirectly reduce software cost. The authors started their discussion on revaluating software reuse and the way this process is said to a few economic models: cost avoidance (CA). Return on investment (ROI). Cost/benefit (CB) [5]

Their research involved an analysis of one commercial bank in Finland. It can be seen that the securities trading system required the highest maintenance cost. This is due to the high overhead costs of high integration, interfacing and large batch processing. The rules and policies governing the securities system were very

dynamic and this added to the cost of maintenance. The payment systems had the lowest maintenance cost due to the fact that companies in Finland have a high level of automation with the banking system and all transactions are processed electronically, hence reducing maintenance cost significantly. [2]

The effect of collecting historical data on software projects so that cost estimation would be compared with the suggested guidelines of the capability maturity model (CMM). The authors wanted to find out whether historical data collected together with experienced and no experienced project managers were able to provide better software cost estimation. [4]

The author proceeded to debate the normal software development cost controls and the way these controls had inherent problems. [3]

IV.METHODOLOGY

Logistic regression may be a process of modelling the probability of a discrete outcome given an input variable. The foremost common logistic regression models a binary outcome; something that may take two values like true/false, yes/no, and so on. Multinomial logistic regression can model scenarios where there are over two possible discrete outcomes. Logistic regression may be a useful analysis method for classification problems, where you're trying to see if a brand new sample fits best into a category. As aspects of cyber security are classification issues, like attack detection, logistic regression may be a useful analytic technique. The name "logistic regression" springs from the concept of the logistic function that it uses. The logistic function is additionally called the sigmoid function. The worth of this logistic function lies between zero and one.

Logistic regression is another powerful supervised ML algorithm used for binary classification problems (when a target is categorical). The most effective thanks to giving some thought to logistic regression are that it's a simple regression except for classification issues. Logistic regression essentially uses a logistic function defined below to model a binary output variable (Tolles and Meurer, 2016). The first difference between regression toward the mean and logistic regression is that logistic regression's range is bounded between 0 and 1. Additionally, as hostile simple regression, logistic regression doesn't require a linear relationship between inputs and output variables. This is often because of applying a nonlinear log transformation to the chances ratio (which is defined shortly).

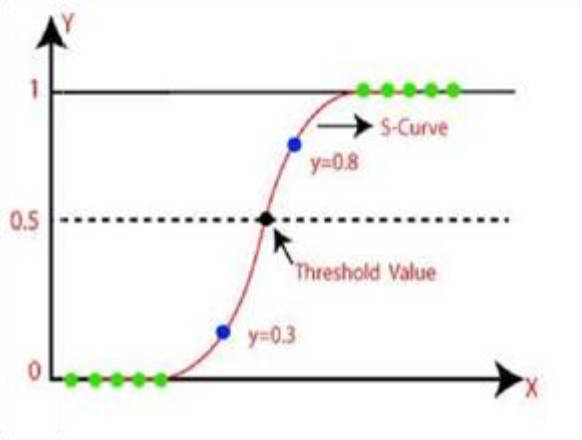

Fig4.1

ASSUMPTIONS IN LOGISTIC REGRESSION ALGORITHM

- In a binary logistic regression, the variable must be binary.
- For a binary regression, the factor level one amongst the dependent variables should represent the specified outcome.
- Only meaningful variables should be included.
- The independent variables should be independent of every other. This implies the model should have little or no multi collinearity.
- The independent variables are linearly associated with the log odds.
- Logistic regression requires quite large sample sizes.

STEPS IN LOGISTIC REGRESSION:

To implement the Logistic Regression using Python, we'll use the identical steps as we've got tired previous topics of Regression. Below are the steps:

- Data Pre-processing step.
- Fitting Logistic Regression to the Training set.
- Predicting the training results.
- Test accuracy of the result.
- Visualizing the test set result.

V.RESULT

Reducing irrelevant expenses using Artificial intelligence in the organization. A one-time investment in AI software is likely to be less stressful for your budget than hiring full-time workers. By Visualizing the organization's past five-year expenses, irrelevant expenses can be analyzed and future expenses of the organization can be forecasted. This helps in planning the future budget of the organization.

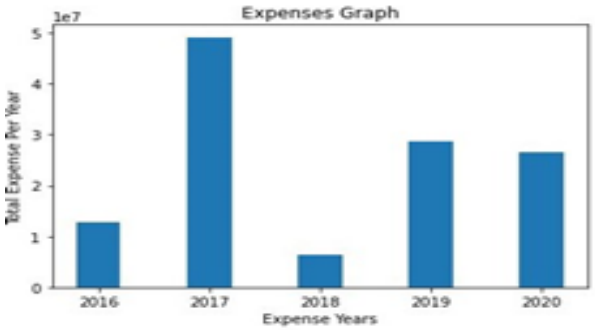

Fig 5.1

In the above figure 5.1 the chart represents 5 year's deposit amount of the organisation. Comparing the expenses of the past 5 years we can predict unwanted expense. Those expenses can be eliminated using AI technology and can predict future budget for the organisation. Here 2021 and 2022 expense of the organisation is predicted.

Fig 5.2

VI.CONCLUSION

Based on the prediction of the company's future activities and fairly decomposing these activities among various departments can the company's budget indicators be close to reality. Confirm the sleek implementation of varied value-added activities of the enterprise. Within the strategy of using advanced AI Technology (machine learning, processing, intelligence), it is deeply integrated with enterprise accounting activities and functions to bolster the intelligent decision-making level of the system. This research will help improve the company's overall budget management level.

VII.REFERENCE

[1]Heemstra F.J. and Kusters[1], R.J. (2000) Assessing IT Investments: Costs, Benefits, http:// www.escom.co.uk/conference2000/ index.shtml, last accessed January 2005.

in Engineering, vol. 2010, Article ID 572404, 20 pages, 2010.

[2]Maxwell K.D. and Forselius, P. (2001) Cost Drivers of Annual Maintenance:

OneCommercial Bank's Experience. European Software Control and Metrics. Available

[3]Morgan, M.J. (1994) ''Controlling software development cost,'' Industrial Management & Data Systems, Vol. 94, No. 1, pp. 13–18.

[4]Myrtveit, I. and Stensrud, E. (1999) Does History Add Value to Project Cost Risks. European Software Control and Metrics. Available at:

S. V. Albrecht and P. Stone, "Autonomous agents modelling other agents: a comprehensive survey and open problems,"

[5]Toffolon, C. and Dakhli, S. (1999) An Economic Model of Software Reuse.European Software Control and Metrics. Available at: http://www.escom.co.uk/conference1999/index.shtm

last accessed January 2005.