Study of software used to implement financial tools and concepts

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Abstract

This paper aims on financial aspects and some of tools which are commonly used in financial processing, forecasting etc.Finance plays very important role in all aspects of life whether professional or personal. Financial planning is key to success in every field of life. Efficient financial tools are highly required for financial analysis .In this paper we will focus on some financial tool and some concepts used in financial analysis and processing.

Keywords: *Macro, Excel ,Audit ,XML, Document ,Transaction.*

1. Introduction:

Financial planning needs help of financial tools and some key concepts for financial processing. We can used this tools to get better and fast results .Financial forecasting is also very important thing which can be done with help of these tools .We should know various functionalities available in the financial tools ,how to uses those functionalities and what are the shortcomings in those functionalities. We should be able to find various alternatives for different tasks and should be able to predict which alternative will be more suitable for particular task.

2. Importance of XML

Let we consider Chief of a company who regularly looks at financial data. He wants to specify a range of dates and then get aggregate financial data relating to those dates. He wants to check Financial Figures, Revenue streams, Costs summarized by weeks within the specified period He wants to see the raw data as well as charts showing these trends for the specified date interval.

To achieve this some staff members have to shift through very large data sets and create different spreadsheet reports for the different conditions. The load on dept of information technology is very large and the dept. has to cater need ofthe chief as well as of different departments.

A possible alternative can be such that we have an Excel spreadsheet that could adapt to deliver the various reports the Chief needs as well as other departments could reuse them and can be used to fulfill similar needs. XML can be used to achieve this goal.

XML is meta language which is obtained from standard generalized language. XML is platform independent and has a very easy data format which can represent any data whether structured or unstructured easily..It is standard fot data exchange on net and it is uniform model which is very widely used in data integration.XML signature is used for signing XML documents.

XML is a technology that is designed to manage and share structured data in a human-readable text file format. XML follows standard guidelines and can be processed by a different databases and applications. Using XML, application designers can create their own customized tags, data structures, and schemas. In short, XML greatly eases the definition, transmission, validation, and interpretation of data between databases, applications, and organizations. XML can manage, transport and store data easily .XML do not support display of data very well. XML is self descriptive and understandable.

XML was designed to transport and store data. Most browsers can easily interpret XML documents. Most important thing in XML is its tags or elements. There is very big difference between how data is stored in database and XML. Data base is considered as heavy weight and XML is considered as light weight i.e XML needs less resources than data base in performing same task .In XML data can be stored in any user defined

format there is no need to follow any standard format where as in data base we rely on some standard format. Dara base are proprietary where as XML is open source. The functionalities of XML can be easily extended as per the requirement where as in data base we do not have such flexibility. Mails implemented with XML can be archieved, processed and searched very easily and effectively.

XML can be used to hold data of all types.XML can be optimised easily. Elements used in XML provides very high security so that it can be used for used for online processing. In XML information is separated from presentation (Chenetal, 2014). There are two types of XML files schema files and XML data files. Excel can easily import XML files and these files can be easily manipulated by it .XML concept used in excel is called as map. Data from excel can be easily exported to XML .XML provides very user friendly way to work on all types of data .It helps in reusing the data for similar application and with similar operative procedures.XML is format independent i.e it can accept and process all types of format.
XML syntax is very simple and resembles to syntax of many other programming languages so it can be used very easily by programmers working on different languages. The memory requirement of XML elements is very less so these elements can be processed at a very fast rate.XML has very clear hierarchy of operations. This can be used in all types of financial applications. XML data can be easily converted into excel format and vice versa.

 XML Map are important when we want to Add Data from XML and export it to XML.

3. Importance of Macro

Macros are programmed using VBA (Visual Basic for Applications) we can also use macro by predefined facility provided by excel in form of macro recorder. macro are recorded in form of .xlsm extension , a different icon is given by excel for the work book which is macro enabled which contains exclamation mark in superimposed format. With the help of this icon we can easily recognise work book based on macro. The macro must be recorded carefully so those thing which should not be done must not be recorded. Macro records only action simply browsing activity are not recorded. We should try to develop generic macro that is which can be used in different situations .To provide security to macro we can click on macro security in the code group the security dialog box

will appear and in macro setting we can disable all the active macros.

Whenever we open a document containing macro it alerts about macro and we can click enable content to enable the macro. We can store macro either in the current work book or we can create separate work book. Macro is wonderful tool for those activities which are repetitive in nature. The most simple thing to use macro is to create macro buttons so that macro can be played very easily. (Yahia- S. Amer,et al. 2001) By default excel macro recorder records absolute steps.

Macro uses programming concept but we should not be a programmer to teckrd or use the macro. while creating macro we should make it clear that macro should be recorded clearly, there should not be error in macro the key combination used to run macro must be meaningful. An in experienced person can also perform repetitive task very easily with help of macro .Number of error can also be minimized using macro. In macro there is one problem i.e if something is to be changed in macro whole macro must be recorded again.

Macro are continent to use but they should be used only if the task is repetitive in nature, we should not create macro for non repetitive things since it will be more costly to to create non repetitive macro. Macro saves very large amount of time in invoking various functions by compiler. (Arion . A., et al., 2004) Macro is sometimes referred as pre processor that is they are already processed by compiler before we want to use them. Macro reduces length of program but it increases memory requirement of the program. Macro makes complex computation easy to perform and we can create simple macro or complex macro as per the requirement.

Macros are highly used for formatting task, data clean up, process automation .Macro can be planned in advance or they may be recorded during the development. Macro reduces testing time to a great extent so we can easily add new functionalities in a program containing macro. Macro developed for one application can easily be used in another application with similar effort. Macro is a powerful tool available in the hands of user, applications of macro are unlimited, it all depends on user view how to use the macro. Macro can contain any number of statements or commands as per the needs of user. Generally small to moderate size macro is preferred because these macro can be executed at a very fast rate.

4. Importance of Excel

Excel is a powerful tool available in the hands of users. Application of excel functions are unlimited. It depends on the imagination of the user only, how a function can be used in a particular situation.

Excel can perform data operations at a very fast rate. Complex reports can be generated at a very fast rate and very accurately. Excel is very far better than manual procedures. Excel functions are very user friendly and can be used with simple knowledge of requirement of output. For financial analysis excel is like oxygen, most of functions used for financial analysis are predefined in excel. Excel is no doubt the best tool for performing financial processing and for performing audit in real time.

Key Steps for Obtaining Audit Data in Excel
We need to follow the steps given below to obtain the Audit Data:
1. Generate a data Request – We need to generate a request with the auditer to share his data. We have to clearly specify the requirements.(Arion.A, et al., 2008) This step is very crucial as any ambiguity in this will lead to wastage of time and efforts. This request needs to be addressed to the proper person having the authority to supply such data.

2. Follow up – If the data is not received within reasonable time, we need to have timely follow up. We have to issue reminders from time to time to make sure that the data is made available on time .If the data is not obtained on time then overall processing will be delayed.
3. Receive the data – After receiving the required data we have to acknowledge the sender that data is received In due course, auditor will send the data. We should receive it and should acknowledge its receipt.
4. Validate the data - We should check the received data for its authenticity, integrity and completeness (Balmin.A , et al., 2006). If the data is incomplete, in inappropriate format or doesn't appear to be authentic then we should immediately raise this issue to the sender for getting the required data.
5. Follow up – For missing data, we should keep making follow up to receive them in good time.
After complete data is received, we can perform required analysis using MS Excel.

MS Excel is one of the most widely used software's in the world. Excel is also needed by the different departments of an organisation. Departments like accounting and finance, marketing, medical ,textile, education , human resources, administration etc. heavily use excel for carrying out their operations. Auditor need to obtain data for auditing purpose., the data may be obtained in various formats like XML, CSV, PDF etc. Data of any format can be easily converted to excel and can be processed.

Excel is a powerful tool available in the hands of users, programmers, developers. Application of excel functions are very huge. It depends on the user only, how a function can be used in a particular situation

Excel provides very large number of financial functions relating to depreciation calculation auditing interest calculation, arrear calculation, marginal costing, cash budgeting, discounting, tax calculations, EMI calculations, capital budgeting, risk analysis and investment, financial planning, etc.
In today's time it is compulsory for an accounting person to learn financial functions in excel to ensure his existence in this world of accounting. Knowledge of these tools gives us an advantage of handling huge amount of data at a fast speed.

Excel can be conveniently used for preparation of tax computations. Two most common, unique, important functionalities provided by excel are EMI calculation and Gap detection.

EMI Calculation
EMI stands for equated monthly instalment. This is very largely needed in case of taking finance decision. Both lender and borrower, are always interested in knowing the amount of monthly instalment that shall be payable. Instalments are divided over the period of time for the repayment.

Gap Detection
Most of the key documents like invoice numbers; cheque numbers should be serially numbered. There may be some invoices or cheques which could be 'missing'. i.e gaps may exist in between two numbers. We can detect gaps with help of tool in excel. Benford's Law is one the most famous tools used in Forensic Audits. Benford's Law is known as the law of first digit. This is because it is based on the first digits of numbers. It was given by Frank Benford in 1938.

Concept
Probability says that the probability of a particular digit being the 1st digit of a number is 1/9 i.e. 0.1111. It is same for any other digit (except 0 which cannot be the 1st digit).Frank Benford says that in real life the numbers behave in a different

way. The probability of 1st digit being 1 is the highest among all digits. After that, 2 is most probable, after that 3 is most probable and so on. The probability of 9 is the least among all digits. He performed extensive research on various unrelated datasets.

Experiment :In this I have collecte variou data used for auditing from different sources' like educational institution. medical professionals, Banks and the financial functions available in financial tools were applied on those data to find result of auditing.XML was used along with excel tools which proved that if excel tools along with XML and macro are utilised than performance is highly improved.

5. Conclusion:

The finding of this paper is that financial processing can be done very efficiently with help of tools for financial processing but we should know the basic concept of functionalities provided by the financial tools. We should periodically switch between various tools and concepts to know pros and corns of tool and concept so in later time we can use the best tool and concept to get fast and accurate financial predictions and results.

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