

THE CRITERIA FOR SELECTING ACCOUNTING SOFTWARE: A THEORETICAL FRAMEWORK

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ABSTRACT:

Selecting the appropriate accounting software has become an important issue for many organizations. Selecting the wrong accounting software would be a great disaster; it might lead to major financial losses, and possibly even bankruptcy. Certain crucial factors such as users' current and future needs; business type; business size and accounting software features should be taken into consideration before even obtaining the software. The objective of this paper is to investigate; analyze and evaluate the main factors an organization should consider in its decision to select the appropriate accounting software. The paper introduces an integrated framework of the main factors that might affect the selection of an appropriate accounting software package for an organization.

KEY WORDS

1. Accounting Software 2. Selection Criteria 3. End User Requirements 4. Theoretical Framework

1. INTRODUCTION

We have come a long way from "paper and pencil" accounting systems. Accounting software packages have become commonplace for organizations in recording business transactions, preparing financial statements and analyzing operations. Accounting software has freed the accountant from the manual recording and presenting of financial data. By using accounting software, financial transactions can be recorded quickly and accurately at a relatively low cost. Moreover, accounting software packages increased overall operational effectiveness by improving both the quantity and quality of management information available (Collins, 1999; Fisher and Fisher, 2001, p.16).

Years ago, when personal computers were just coming into its own, accounting software was relatively simple. Its single function was to automate the task of double-entry accounting and produce a straightforward balance sheet. As computers became more robust and integrated databases standardized, accounting software developers added more functions-including cost accounting, manufacturing resource planning, customer resource management, human resources, and payroll (Jones, 2002).

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Henry (1997) confirmed that the steady decline in the price of the information technology and the increasing availability of “off the shelf” accounting software have led more and more businesses of any size to automate all or part of their accounting functions. Further, in an effort to be extremely “user friendly”, accounting software requires little knowledge of accounting to be put to effective use. It is doubtful that such users would have direct knowledge of security issues in accounting systems. They must be made aware of potential security problems and solutions by the accounting, auditing or tax professionals they may occasionally consult.

User-friendly accounting software might also create significant risks related to the security and integrity of computer and communication systems, data, and management information. West and Zoladz (1993) stated that, although computers provide many benefits, inherent computer security issues are not often addressed by management. Many organizations do not realize the importance of computer security until some unauthorized modification to a payroll file, or some other event, occurs. Because information might be an organization’s most valuable asset, leaving it without protection is tantamount to underinsuring fixed assets or inventory. Therefore, in selecting accounting software package, organizations can no longer afford to ignore the importance of information security in the light of computer fraud, hackers, computer viruses, and other security threats.

Jones (2002) argued that selecting accounting software, in many ways, the attributes one wants in accounting software resemble those one is likely to seek when choosing a spouse. One wants a faithful (accurate) helpmate who grows with him / her (capable of being scaled up). One wants someone he/she can treasure through sickness (financial loss) and in health (profitable growth). One wants the candidate to be capable of intimacy (keep confidences) yet be open to recognizing his or her faults (an audit function to find and fix errors). And most important one wants the relationship to be long lasting-without the need for expensive and debilitating upgrades.

Selecting the most appropriate accounting software package has become one of the most critical decisions for most organizations in the fast-changing business world. Therefore, the accounting software package an organization chooses should be the one that best serves its current needs and can most easily be adapted to its future needs. Selecting the correct package cannot be taken lightly. If the wrong package is selected the company will be faced with spending a great deal of time and money to purchase a new system. Selecting the wrong accounting software would be a complete disaster for an organization. It is recommended that the individual choosing a package spends a great deal of time researching all aspects of the software since it may be the most important software the company purchases (Simkin, 1992; Tavakolian, 1995; West and Shields, 1998; Tate, 1999; Soukup, 2000, Mattingly, 2001; Basile et al. 2002; Deshmukh and Romine, 2002; Sampson, 2003).

Mattingly (2001) stated that choosing the right accounting software is becoming more difficult as the software market becomes increasingly fragmented. In many cases, more product information makes decision-making more difficult rather than less. The risks of leaping into an expensive purchase decision are hard to assess. While Collins (1999) confirmed that selecting the appropriate accounting software for an organization requires a close investigation of many diverse areas. According to Collins point of view long-term needs of an organization is an area that often gets lost in the technical assessments of accounting software. It is critical that one should evaluate an organization’s requirements beyond the immediate and short term needs. Businesses grow-and so do their accounting

software needs. Collins also argued that one should assess the way that individuals in an organization use the applications and their needs should be considered in the purchasing decision. That is not to imply that needs of everyone should be given equal weight. For example, bookkeepers and data-entry staffers tend to place more emphasis on the data-entry task of getting cash and inventory in and out the door, while CPAs focus on providing management with the necessary financial reports. It is argued that those making buying decisions rely heavily on the bookkeepers' and data-entry clerks' assessments of needs are too often give short shrift to the product's reporting capabilities.

Acquiring the most appropriate accounting software would not be an easy task. One would face many challenges to get accurate and valid information that might be needed to take the right decision. Trade shows, seminars, and magazine articles related to selecting accounting software are typically just telling one about the good stuff. The vendors at trade shows usually provide the users with fancy brochures and show them the advantages and capabilities of their products. Vendors often try and gloss over or hide the weaknesses or missing bits of their accounting software. They usually try to convince the user that their product will do all what he/she wants whether this is actually the case or not. It less likely or almost impossible that vendors would tell the user what's missing or what's wrong with their product (Collins, 1999; Tate, 1999)

The lack of reliable independent source of information makes selecting the appropriate accounting software more complicated. It seems that there is no independent place one might refer to or get good help with avoiding the wrong accounting software package. Even with careful analysis, it is difficult to certain of success until the software is installed and running. Therefore, a month or few months of operations to investigate whether is satisfies an organization's needs, and by then it would be too late to change it.

The main objective of this paper is to investigate, analyze and evaluate the main factors an organization should consider in selecting the most appropriate accounting software that would satisfy its current and future requirements and comply with its information technology environment. Analytical approach will be implemented to study analyze and evaluate the main factors that should be considered in the selection process. This paper proceeds to introduce an integrated framework which links the main characteristics of accounting software, business type and size; and the current and expected customer's needs and requirements. The paper proceeds to present a guideline that might help organizations to rationalize their selection among competent available accounting software packages. In the next section, the main criteria of selecting the most appropriate accounting software for an organization will be discussed.

2. THE MAIN CRITERIA OF SELECTING AN APPROPRIATE ACCOUNTING SOFTWARE PACKAGE

The objective of selecting accounting software is to match the product features with the user's needs. The single most important question is whether the accounting software could be customized - and if it could, whether the amount of customization it is capable of meeting an organization's requirements. Vendor reliability would be also critical. No matter how good a product is, users still have to rely on the vendor. It is usually advised to avoid vendors with limited resources. Since a primary objective of any financial accounting system is producing accurate and reliable financial statements on a timely basis, one should be sure that the accounting software being considered would produce the kind of financial reports that are

required - and that it included a wide variety of financial and business reporting ratios (Collins, 1999, p.61).

The process of selecting the accounting software package that best fits an organization's needs might be difficult. Some general steps to follow in evaluating and selecting alternatives are:

- Develop macro-level criteria;
- Do an initial screening of packages to arrive at a short list;
- Define detailed requirements for specific functions of every management area you expect to computerize;
- Evaluate the short list through the request for proposal (RFP) process, vendor demonstrations, and vendor site visits;
- Perform cost/benefit analyses;
- Call and/or visit vendor references;
- Select the alternative that seems to provide the best fit;
- Plan for design and implementation of the package;
- Develop detailed cost estimates, business case, and value propositions for the project;
- Conduct software contract negotiations; and
- Arrange for implementation assistance (i.e., internal or consultants) (Morey, 1999).

Morey (1999) mentioned that organizations are using technology to provide themselves with increasing efficiencies and competitive advantages in the marketplace. Used strategically, technology can be the differentiating factor that separates a company from the competition and provides new opportunities for growth. The overriding consideration is finding software compatible with a company's long-term business goals and the needs of tenants and clients. However, caution must be exercised to keep the planning, implementation, and use of information systems focused on supporting business strategies, organizational structure, and operational requirements-not an end unto itself.

Gurton (2001) argued that power and ease of use are no longer the only criteria for selecting an accounting system. Ease of use is still important but compatibility has increased in importance, too. Now that companies need to communicate via the Internet or Intranet, all must conform to the same standards of transmission and file structures. Despite claims of compatibility, however, it is frequently lacking at the level necessary. The new web-based technology does not only mean universal connectivity, but also inter-operability throughout the enterprise and the embracing of new business techniques like customer relations management. The accountant needs to take a holistic view of the business's needs to ensure that all requirements, now and in the future, will be met.

Collins (1999) argued that there's an old saying, if you ask the wrong question; you're likely to get the wrong answer. That certainly applies when CPAs ask which accounting software product is the best. The fact is, there is no best accounting software. There is no single product that suits everyone's needs, but there are probably several that suit one company's specific requirements. So, since the problem is matching software products with a user, the correct question is: How should I go about finding the packages that are right for my business or client? When it comes to accounting software, the search begins by examining both the products' features and the vendors behind the products. Because accounting software contains hundreds-if not thousands-of features, this may seem like an overwhelming task. While such

assessments are not exactly easy, they are not overly difficult, because only a handful of features are critical to making the right choice-and one should focus on those features.

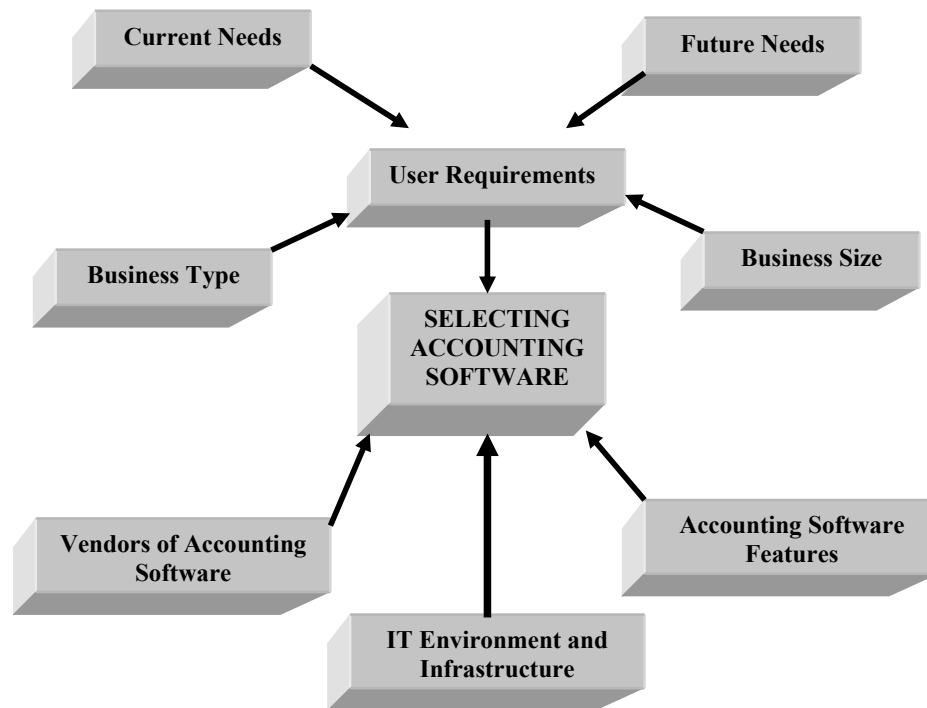
Therefore, in evaluating an accounting software package, the following key questions should be asked:

- Does the software provide customization tools?
- Is the vendor financially sound and reliable, and can it provide the technical resources my organization will need?
- Can the product deliver the type of financial reporting the user require?
- Will the underlying technology meet my current and future needs?
- Is the product's account-number structure suitable for my business?
- Since e-business has become so important, does the package provide Web integration?
- Can it handle foreign currency?
- Is it easy to use? and
- How much does it cost? (Collins, 1999, p.61).

During the selection process, it is important to document each package, its features, its pros and cons, and whether it fits the company's needs. This information will make it easier to narrow down the choices later on. The current and future end users' requirement; the nature of business and its size, IT environment and infrastructure, the accounting software features and the vendors' capabilities of the accounting software packages should be assessed and considered when selecting the appropriate software packages (Figure 1). The main factors that should be considered in selecting accounting software packages will discussed in the following sections.

2.1 END USER REQUIREMENTS

One of the biggest technology issues facing start-up and smaller companies is choosing the most effective accounting software. Small businesses must remember that the right accounting package is the one that best services the current needs of the business and that can be most easily adapted to their future needs. And the right solution goes beyond just software; customers' support is also important, especially at the outset (Basile et al., 2002). Therefore, It is helpful to think of the software selection decision as a two-fold process. Your first step is to decide which features are most important. In the second step, you select the software that best matches these needs (Simkin, 1992).



(Figure 1)
Selecting Accounting Software Packages

Purchasing accounting software can be a challenge and should not be undertaken without some serious forethought. Certain crucial factors should be taken into consideration before even obtaining the accounting software package. One should assess the business' requirements before investing in any accounting software package. It is essential that the selected accounting software should satisfy the business current and future needs. It is important to investigate the main features of the accounting software to ensure that they are fitting the business' current and future needs. The main four factors expected to affect the end users' requirements of accounting software packages are: current needs; future needs; business type; and business size. These factors will be discussed in the following sections

2.1.1 CURRENT NEEDS

The company must ascertain the problems with the current system. Before deciding that new software is needed, make sure that the most current version is running on the right system. Pinpointing the problems with the current system will help determine what the company should look for in a new package. All employees should have an opportunity to explain their problems with the current system and their expectation of the new system. Once the analysis is complete, the company should eliminate software packages that clearly fulfill their needs. This entails evaluating what each program has to offer against what the company requires form their accounting software (Basile et al., 2002).

In many cases implemented accounting systems in an organization do not adequately satisfy its needs. The first step in that case is to define the problems related to accounting systems in place. A comprehensive list of shortcomings, weaknesses of the accounting software in use should be determined. However, in order to identify the current problems and issues, it might

be helpful to survey the opinions of all end users of the accounting software and to ask for their feedback on a regular basis. Preparing the “Needs Analysis Document” would help in formalizing this process by writing an organization’s current and future needs in a precise way.

Simkin (1992) stated that the accounting software features required by end users are usually dictated by the nature of their organization and can generally be determined by analyzing their existing accounting systems. For example, if an organization sells both products and services, it would require software that can bill for both products and services. Similarly, if an organization requires departmentalized accounting, it must have software that supports this function. Simkin (1992) cautioned that one should not to trust someone else regarding the vital features he / she required in the accounting software. For example, if the user must have network capability or departmentalized accounting, he / she should check the software personally or ask the vendor for references and contact them to verify the existence of these required features.

The selected accounting software package should help the user to manage the business better by tracking receivables, managing cash flow, controlling inventory and much more it should convey the user’s financial position and empower them to make important decisions based on objective information. Accounting software should also support report generation, e-commerce, electronic fund transfer, tax requirements, multiple exchange rates and conversion methods, and the ability to translate into other languages (Soukup, 2000; Mattingly, 2001; Deshmukh and Romine, 2002).

2.1.2. FUTURE NEEDS

West and Shields (1998) stated that selecting accounting software should be considered as strategic decision. Strategic selection is more about selecting a strategic business partner than it is about finding the one best package. It is more about having flexibility to meet future needs than it is about meeting specific current needs. The goal is to get top management's commitment to technology that enables change in the organization, not merely to select and put in a new software package. It is also about letting the vendor drive technology decisions rather than requiring that your IS department make these decisions.

According to West and Shields (1998) the selection of accounting software in today’s environment is a strategic activity for any organization. Therefore, the product selected should drive many of the key business and technology directions for the next three to five years and possibly longer. The system selected should, in many ways, be the technology enabler of the company. Therefore, selections should address the strategies and issues of the organization at the top levels. These systems should be chosen with the strategic needs of the organization in mind and not be focused on lower-level, detailed functional requirements. However,

The first step in the process is to analyze the strategic requirements for the new software. Management needs to answer the following questions: What are our business strategies and plans for the next three to five years? What are the business drivers for this organization? Are we planning to grow substantially? Will we grow through acquisitions or through internal activities? Are there any major re-organizations planned? Do we plan to take our products global? What partnerships (with customers and suppliers) and joint ventures are we considering? Who are our major competitors, and what do we expect their moves to be? What

are our competitive advantages? What are the things that we must do well to beat the competition? How are we currently using technology? What do our current systems look like? Where are the gaps in technology support for the organization? Do they provide the information needed to analyze the business and make decisions? How well are these systems integrated? Are we using new technologies like client/server, EDI, data warehousing, and the Internet? Which of our applications are not Year 2000-compliant? How is technology being used by our competitors, customers, and suppliers? What do we know about the technology used by others in our industry? What new applications are being developed? Do our customers and suppliers want EDI-transmitted documents or direct access to our system to review inventory levels or order status? (West and Shields, 1998).

2.1.3 BUSINESS SIZE

One should also decide the expected number of individuals who might use the accounting software simultaneously. Almost all the top accounting software publishers provide retail pricing for the cost of eight core modules (general ledger, accounts receivable, accounts payable, payroll, inventory, order entry, job costing, and system management) for 1 user, 5 users, 10 users, 25 users, and 100 users. The business should select the appropriate accounting software package according to the expected number of users who might use the accounting software simultaneously. According to Mattingly (2001) point of view “businesses that anticipate increasing numbers of transactions, or many additional users, will want a scalable database to handle their growth. This may considerably increase the software's cost and significantly affect the usual variables of implementation and support”.

2.1.4 BUSINESS TYPE

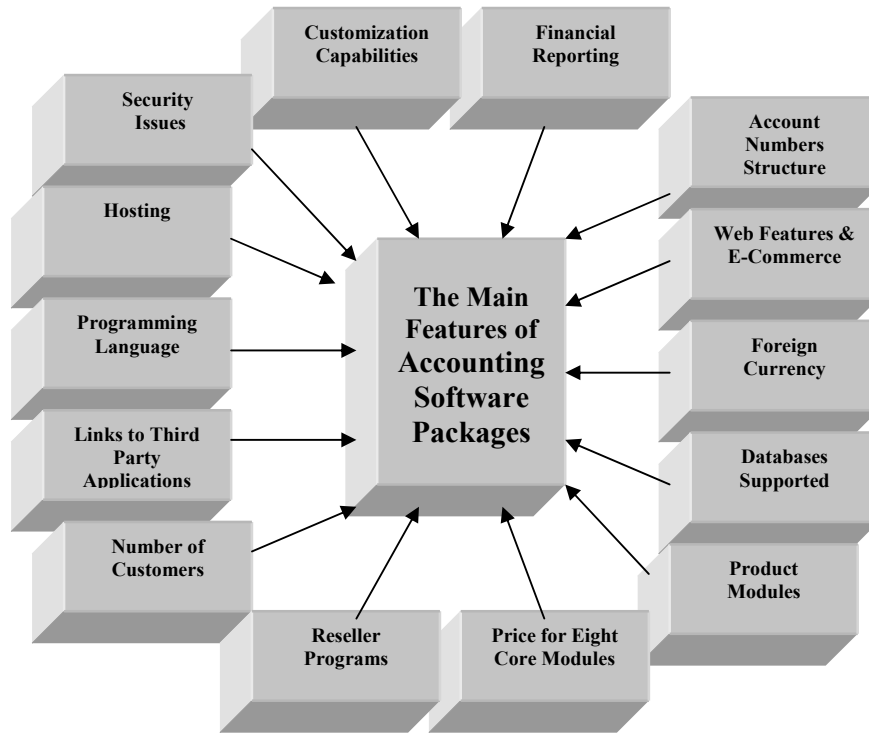
The accounting software packages might be divided into two main types: general accounting software and specialized accounting software. Specialized accounting software are designed especially to fit the requirements and special needs of some users such as Government Accounting; Fund accounting; Property Management; Oil & Gas; Farming and General Accounting and Manufacturing software packages. The following are the most popular specialized accounting software packages that have done a good job in specific industries:

- Blackbaud (Donor Software);
- American Fundware (Fund Accounting);
- Deltek (Government Accounting);
- Squirrel (Restaurants);
- Yardi (Property Management),
- Sun Systems (Oil & Gas)
- Cougar Mountain (low-end to mid range);
- Red Wing (farming and general accounting);
- CYMA (general accounting for the mid range).
- Made2Manage (Manufacturing).

2.2. ACCOUNTING SOFTWARE FEATURES

The second main factor that might affect the selection among accounting software packages is the features of the accounting software packages. The main features of accounting software packages are: customization capabilities; financial reporting; account numbers structure; account numbers structure; foreign currency; databases supported; product modules; price for

eight core modules; reseller programs; number of customers; links to third party; programming language; hosting; and security issues (Figure 2).

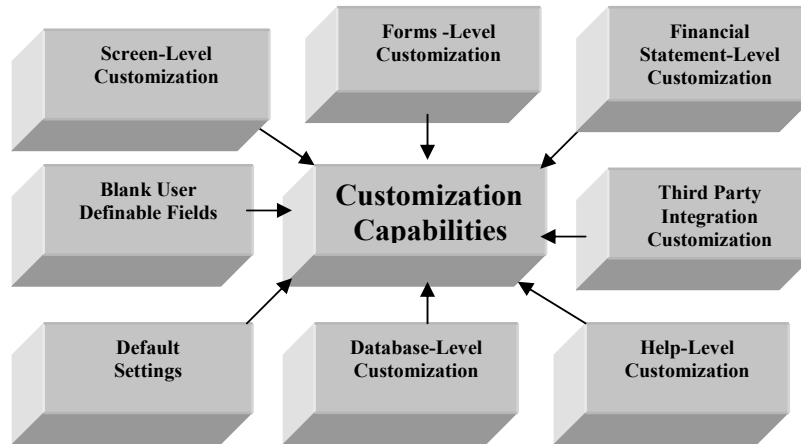


(Figure 2)
The Main Features of Accounting Software Packages

2.2.1. CUSTOMIZATION CAPABILITIES

The most important feature that should be considered in selecting appropriate accounting software package is its ability to be customized to satisfy an organization's particular needs. Many of recent accounting software allow the end user of these products to modify them easily. According to Fisher and Fisher (2001) customization capabilities of accounting software is a real concern. Some off-the-shelf applications are offered with very little or no opportunity for customization to meet an organization's needs, while other vendors will work with the end user to tailor the applications to meet their firm's needs. They argued that the greater the opportunity for customization the greater the cost of the applications is (p. 16).

Collins (1999) confirmed that the most important question one needs to resolve before deciding on an accounting software package is whether it could be customized-and, if it could, whether the customization will meet the user requirements (p.61). The main customization levels are: financial statement-level customization; forms-level customization; screen-level customization, blank user definable fields; default settings; database-level customization; third party integration customization; and help-level customization (Figure 3). The main customization capabilities of accounting software packages will be briefly discussed in the following sections.



(Figure 3)
Customization Capabilities of Accounting Software

2.2.1.1. Financial Statement-Level Customization.

Customization of financial statements and reports is the most simplistic and important feature of an accounting software. It presents the ability of the accounting software to create new financial statements or edit existing financial statement formats. Some accounting software also allow the user to change the font, add lines, and even add graphic pictures, such as a company logo, directly to the financial statement. This type of customization is fairly common as most accounting software do offer this level of customization; however, some products offer much easier-to-use tools than others. One should evaluate this prospective of products by asking the reseller to demonstrate the process of inserting a new column and moving an element on both a report and form (Collins, 1999).

2.2.1.2. Forms -Level Customization

According to this feature, the user will be able to customize accounting system forms such as checks, invoices and packing slips. This ability allows the end user to edit the form formats by adding new information to the form or rearranging the information so that it will print properly on pre-printed forms. For example, a user might want to continue using old preprinted checks or invoices even though the company has just upgraded to a different accounting system. This customization feature allows the user to adjust such printings to fit the old design or to contain exactly the information they desire (Collins, 1999).

2.2.1.3. Screen-Level Customization

Screen-level customization allows the user to edit, change and add to the data input screens. Users typically can rename, rearrange and even hide existing fields. One should evaluate this prospective of products by asking the reseller to demonstrate the process of changing data labels, rearranging data fields on screen, changing the tab order of the fields, inserting new data fields, setting defaults and inserting new tabs on tabbed dialog boxes. Some products might provide full control over the data input screen design while others do not. Other sophisticated capabilities include the ability to set the tab order of the user fields, insert drop

down boxes, and embed third party applications with the accounting software user input screen (Collins, 1999).

2.2.1.4. Blank User Definable Fields

One of the most favorite features of accounting software packages is the blank user-definable field. This feature enables the end user of accounting software to add new data using the hundreds of unused fields added throughout the accounting system Instead of modifying the product's source code. The end user need only assign a name to that new field and begin inputting data. In selecting an appropriate accounting software one should ensure that the number of blank user-definable fields included in the product stratifies current and future requirements needs (Collins, 1999).

2.2.1.5. Default Settings

Some accounting software products allow the user to specify default settings on a field-by-field basis. Collins (2002) argued that a company that works primarily in Georgia might pre-configure the customer and order entry screen to automatically display Georgia as the default state for each new record. This can save time and improve accuracy. At first glance this might not seem to be much of a time saver, but consider this. Many companies process tens of thousands of invoices each year. Without a default setting, your order entry clerks would need to enter “Georgia” or “GA” tens of thousands of times – once for each order. How many hours would it take for you to simply type out the word “Georgia” or “GA” fifty thousands of times? Assuming that it takes only one second to perform this task, it would still take 14 hours to type “GA” 50,000 times. A default setting allows the user to simply tab over the data field altogether and skip the data entry portion for this particular field. Now multiply 14 hours times all of the other fields where default settings are likely to apply. Most companies have default terms, shipping methods, categories, sales person codes, currency codes, etc. By simply establishing default data, even modest sized companies can save hundreds, if not thousands of hours each year in data entry time. As a twist to this feature, some accounting packages allow the user to setup Boolean lists, or drop down lists to improve speed and accuracy. Still other products enable the user to setup automatic calculations, which enter the default data on the fly. For example a product may use the system’s date and payment terms to automatically calculate and enter the discount date or due date.

2.2.1.6. Database-Level Customization

Database customization allows the end users to change, edit, or add fields and tables to the database of the accounting software. The database customization feature makes database more flexible to satisfy particular requirements of the business and to handle its transaction without changing the database source code. The availability of such feature increases accounting software efficiencies by making it more powerful and friendly use which would increase its reputation and competitive advantages in the marketplace.

2.2.1.7. Third Party Integration Customization

Another aspect of customization capabilities that one should consider in selecting accounting software is its ability to integrate third party products with the financial application. Some accounting software could be much better than others at achieving this feature. However, most popular accounting software in marketplace has an import feature that allows end users

to import data file from another applications such as Microsoft Excel or Microsoft Access. The existence of this feature in accounting software will save time by eliminating duplication of effort.

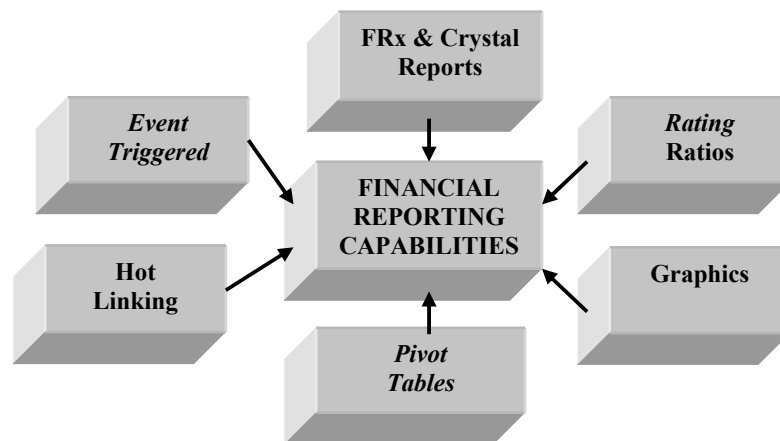
2.2.1.8. Help-Level Customization

Some accounting software packages offer the end user the ability to enter additional text directly into the help screens. The existence of such feature could increase the usefulness of accounting software and enhance its adaptation ability if it is properly done. This feature makes an accounting software package more sensitive for organizational, economical, cultural and environmental needs of the end user.

2.2.2. FINANCIAL REPORTING

A primary objective of any financial accounting system is to provide accurate financial statements on a timely basis. Organizations frequently complain that their accounting software do not produce required financial reports. While other are not considering the importance of financial reporting, and therefore they fail to fully consider financial reporting capabilities when evaluating accounting software packages (Collins, 1999, Sampson, 2003).

The most important aspects of financial reporting are the built-in FRx and Crystal Reports; Rating Ratios; Graphics; Pivot Tables; Hot-linking; and Event Triggered Reporting (Alarms) (Figure3). The main elements of the financial reporting characteristics will be briefly discussed in the following sections.



(Figure 4)
Financial Reporting Features

2.2.2.1. FRx AND CRYSTAL REPORTS

When it comes to financial reporting, many accounting software products incorporate two third-party products-FRx and Crystal Reports-into their packages rather than develop their own. And in recent years those two products have become industry standards. Both work seamlessly with more than 25 top accounting software packages. So dominant is FRx that some products, such as Great Plains Dynamics, Platinum for Windows and Solomon IV, rely on it as their primary financial reporting tool (Collins, 1999).

When evaluating software, you should ask whether it works with FRx or, if it doesn't, whether the built-in module exhibits comparable features. Collins (1999) introduced the following key capabilities of FRx:

- Produces financial statements with up to 256 columns.
- Links financial data from either a general ledger or other products such as a spreadsheet or database application.
- Creates calculations such as expenses divided by units produced.
- Produces provisional financial statements—that is, as if all un-posted transactions have been posted.
- Views reports on screen and easily drills down from financial summary information into account and transaction details.
- Sends e-mail reports directly to remote users from the report preview screen.
- Exports and imports reports to and from spreadsheets.
- Handles complex calculations such as conditional if-then statements.
- Provides a drag-and-drop utility in the reporting tree so users can see the financial effect of restructuring.
- Creates virtual roll-up structures for reporting at different levels—that is, by store, city, state, territory or country.
- Prepares and distributes presentation-quality reports using customized fonts, colors and other formatting options.
- Compares revenue and expense figures for different departments by creating side-by-side reports.
- Operates in a client-server environment.

According to Collins (1999) FRx primarily offers superior reporting capabilities only from the general ledger module; since it was not designed to extract data easily from other modules. However, Crystal Reports has the ability of extracting and reporting transactions from all modules. Both FRx, Crystal Reports are used by the top accounting software packages. Recently, FRx and Crystal Reports have been used by many organizations to resolve the inadequate financial reporting problem.

2.2.2.2. RATING RATIOS

Another important aspect of financial reporting is built-in ratio reporting. Unfortunately, most accounting software and third-party application developers either ignores this function or don't give it the attention it deserves.

One of the few products that do adequately addresses this need is Business Works for Windows—a product that serves the low-end market. Each of its modules contains a flash report function that summarizes key financial ratios and highlights key information. The general ledger flash report displays 20 key ratios for the following periods: current, year-to-date and prior-year. Also displayed are sales histories and balance sheet amounts for the past 24 months. The inventory flash report provides, among other things, inventory ratios, days in inventory, a reconciliation of the inventory account for the month, inventory and cost-of-goods-sold balances as well as highlights of the fastest selling and highest profit items. This is vital information that helps management detect problems in time to take corrective measures. In any company, it's important for management to receive a set of financial statements at least monthly, complete with financial ratio reports attached (Collins, 1999).

2.2.2.3 GRAPHICS

A picture is indeed worth a thousand words, but it's probably worth several thousand numbers. You should check to be sure the package you're considering could convert numbers into graphics. Several accounting packages can produce pie, line and area charts from the numerical data (Collins, 1999).

2.2.2.4 PIVOT TABLE

One of the most powerful analytical tools is pivot tables—a tool used in spreadsheets that allows the user to take data and pivot, or turn, it in many different ways so the information can be viewed from different perspectives. For example, it can show the relationship between, say, sales in various cities and sales of individual products; and then, by pivoting the data, it can compare sales broken down by cities with those by individual outlets or by individual sales people (Collins, 1999).

2.2.2.5 HOTLINKING

Another important financial report feature is the ability to hotlink accounting data directly to an Excel or Lotus 1-2-3 spreadsheets feature first found in Platinum for Windows. Such a feature allows the user to export financial statements directly to Lotus or Excel as easily as sending the report to a printer (Collins, 1999).

2.2.2.6 EVENT TRIGGERED REPORTING (ALARMS)

Many accounting software products have the ability to alert users to predefined financial conditions. With such a feature a CFO can create simple calculations that the accounting software continuously compares against a preset value. When that value is exceeded, an alert pops on the computer screen. For example, a CFO might create calculations to sound an alert if cash on hand falls below \$100,000, gross margin drops below 20% or the number of days in inventory exceeds 80. In most cases, there is no limit to the number of triggers that can be established (Collins, 1999).

Accounting software not only monitors custom events, but also it can alert managers by sending them e-mails. Its alarms automatically monitor amounts related to account balances, customers, vendors and employees. For accounting software packages that don't provide event-triggered alarms, a third-party solution often is available.

2.2.3. ACCOUNT NUMBERS STRUCTURE

A quick and simple feature that should be considered in selecting the accounting software is the size and segmentation of the product's account number structure. Often one can eliminate an inadequate product by first checking this feature. There are many reasons why it's important to have a larger account number structure. Today's larger companies often have subsidiaries and divisions that must be identified in the accounting system by a fourth, fifth or sixth segments in the account number. In fact, most large not-for-profits organizations need at least four segments in their account number structures - for the account, sub-account, department and program. Many government agencies need at least four segments in their account number structures to identify the account, sub-account, department, and fund (Collins, 1999).

Again, Collins (1999) confirmed that the account number structure is an important feature which could knock any accounting software out of the running instantly. If that structure is inadequate-no matter how superior the product in every other way-the software should be rejected.

2.2.4. WEB FEATURES & E-COMMERCE

In recent years, many accounting software products have begun to add web features and e-commerce capabilities to their products. As the Internet continues to change the way business does business, these features will become increasingly more important. The Internet is changing the way businesses do business, and that means business managers must rethink what they expect from their accounting software (Collins, 1999).

Recognizing this trend, many accounting software vendors have added features designed to accommodate the Internet. The new functions include the ability to:

- Publish Web catalogs directly from, and make links to, the software's inventory module. This means customers can see, among other things, real-time information on prices and quantities on hand.
- Retrieve orders directly from the Web site and import them automatically into the sales order module.
- Print all reports to a Web page format.
- Allow users to access reports and accounting data across the Internet using a password.
- Let remote users securely enter accounting data and transactions via the Web.
- Track an order automatically via links to tracking pages of Federal Express or United Parcel Service.
- Allow users to e-mail reports to users or groups of users.
- Configure a system to automatically send e-mail reports and messages when triggered by predefined events. (Collins, 1999).

2.2.5. FOREIGN CURRENCY

The international marketplace has never been stronger, and the Internet is making that huge market more accessible to even the smallest enterprises. Companies with Web sites suddenly find prospects from halfway around the world can order their products as easily as a customer down the street. Businesses that have never dealt with any currency other than the U.S. dollar are finding they must contend with pounds and rubles and yen and euros, and for the first time they must consider the need for accounting software that supports foreign currency transactions and reporting (Collins, 1999).

When evaluating multi-currency accounting software, one needs to look for several key features. Good multi-currency accounting software should let the end user generate consolidated reports in any currency and to translate financial reports into multiple currencies (Muller, 1994, P.15)

According to Collins (1999) opinion, only a handful of accounting packages process multiple currencies in compliance with FASB Statement no. 52, *Foreign Currency Translation*, Statements of Standard Accounting Practice 20 (the United Kingdom and Canadian authoritative pronouncement), International Accounting Standard 21, *Accounting for the Effects of Changes in Foreign Exchange Rates* (the IASC's authoritative pronouncement), or

the European Community EC Directives 4 (*Annual Account of Certain Types of Companies*) and 7 (*Council Directive on Consolidated Accounts*). Therefore, Collins recommended that if foreign currency features is one of the vial requirements of an organization, the following features should be considered in selecting accounting software:

- FASB 52-Compliant
- Foreign Currency Supported in General Ledger
- Foreign Currency Supported in Accounts Payable
- Foreign Currency Supported in Accounts Receivable
- Foreign Currency Supported in Inventory
- Euro-Compliant
- Supports Foreign Languages

Unfortunately, many accounting software packages are still “single currency” don't provide “multi-currency” support at all. Such accounting software would not be ideal for foreign trade. “Multi-currency” is very important feature to be considered in selecting accounting software, especially for international organizations. The selected software should capabilities of doing foreign currency computations according to the floating daily exchange rate for each relevant foreign currency producing reports that show the effects of favorable and unfavorable exchange rate fluctuations.

Collins (1999) argued that foreign currency requirements became even more complicated as the euro became the official currency of the European Union (EU). Some EU companies already were adjusting for the euro. However, since the new euro coins and notes enter circulation, all EU businesses must use the euro as their local currency. Currently, 15 countries plan to participate in the conversion to the euro: Austria, Belgium, Britain, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and Sweden. Therefore, if one plans to do business in Europe, his/her accounting software should be euro-compliant.

2.2.6. DATABASES SUPPORTED

It documented that most of nowadays accounting software could run a top multiple databases. Therefore, it is the end-users decision to select the appropriate database based on size and volume of their transactions. It could be a costly mistake to under-buy or over-buy a database. If the database is too weak, the accounting system will perform poorly costing an organization hundreds of hours of productivity. If the system is too robust, an organization may pay tens or even hundreds of thousands of dollars extra for the higher end database, higher implementation fees, and higher on-going consulting fees to maintain the system. Therefore, an organization should select the database that matches its unique needs. Selecting the appropriate database could not only not only can save lots of money but also the accounting package can run faster and better-even allowing it to be scaled up as the business grows (see: Collins, 1999).

2.2.7. PRODUCT MODULES

Collins (1999) argued that sometimes it could be difficult to determine exactly which modules are offered by a given accounting software package. Therefore, organizations should check the accounting models provided by a certain accounting software package and whether these models satisfy their requirements and expectations. However, many of the missing accounting modules might be available and provided by third party vendors.

The accounting models that might be provided by an accounting software package include: Activity-Based Management; Asset Management; Balanced Scorecard; Benefits Administration; Billing; Budgets; Campus Connection; Cash Management; Deal Management; Demand Planning; eBusiness Backbone; Enterprise Performance Management; Enterprise Planning; Enterprise Warehouse; eProcurement; eStore; Expenses; FSA Administration; Funds Transfer Pricing; General Ledger; Human Resources; Inventory; Order Management; Order Promising ; Payables; Payroll; Payroll Interface; Pension Administration; PeopleSoft Accounting and Control; PeopleSoft Advancement; PeopleSoft Customer Management for Utilities; PeopleSoft Enterprise Performance Management; PeopleSoft Financial Management for Education and Government; PeopleSoft Grant Management (GA Q2 1999); PeopleSoft HRMS; PeopleSoft HRMS for Education and Government; PeopleSoft HRMS for Federal Government; PeopleSoft Materials Management; PeopleSoft Merchandise Management; PeopleSoft Procurement; PeopleSoft Product Development; PeopleSoft Production Management; PeopleSoft Profitability Management for Financial Services; PeopleSoft Project Management; PeopleSoft Sales and Logistics; PeopleSoft Service Revenue Management; PeopleSoft Student Administration; PeopleSoft Supply Chain Planning; PeopleSoft Treasury Management; Performance Measurement; Product Configurator; Projects; Purchasing; Receivables; Remote Order Entry; Risk Management; Risk Weighted Capital; Stock Administration; Time and Labor; Trimark Transcend for Insurance Policy Administration; Vantive Architecture and Technology; Vantive Contact Center; Vantive e-business; Vantive Enterprise; Vantive Field Service; Vantive Field Services; Vantive Help Desk; Vantive Sales; Vantive Support; Vantive Web Applications; Workbenches; Workforce Analytics

2.2.8. PRICE FOR EIGHT CORE MODULES

In an effort to compare apples to apples, one should compare the different vendors' retail prices for eight core modules of accounting software (general ledger, accounts receivable, accounts payable, payroll, inventory, order entry, job costing, and system manager). The results presented might still valid for comparison. Even with this approach there are comparison problems. For example, some products include a report writer in the general ledger while other might charge extra. Still, these prices offer a reasonable basis for comparison. One may also want to check out the special pricing deals that come up from time to time (Collins, 1999; Hedtke, 2002).

One of the important factors that might affect the choosing among packages is cost of acquiring the accounting software. Modern accounting packages are remarkably inexpensive to purchase, but deceptively costly to install and operate. The costs of training, vendor support, data conversion, and backups are almost guaranteed to dwarf the software's initial purchase price. The software decision could also affect future hardware purchases. (Simkin, 1992)

2.2.9. SECURITY FEATURE OF ACCOUNTING SOFTWARE

Security of computerized systems is a broad concept, encompassing not only the consideration for privacy and keeping information secret (confidentiality), but also the issues of system integrity and availability. Therefore, the need to preserve the accuracy of information and the integrity of data transactions and to ensure the continued availability or continuity of services of the system should be also considered in preserving security.

Conversely, threats to system security can threaten the integrity and accuracy as well as the availability of that system and its data (Harris and Sidwell, 1994, p. 548).

Davis (1996) stated that it is an accepted fact that new technology increases the security risks in accounting information systems. McIntyre (1991) argued that security threats to an organization's CAIS are now too well documented to be ignored. Yet many organizations still fail to take computer security seriously enough. The "it can't happen here" attitude is still alive in many organizations.

In the USA, The American Department of Defense has issued the "Orange Book" series. This contains 17 documents that provide a comprehensive set of guidelines both for people introducing computer security measures and for companies developing secure computer systems and products. In addition, The Advisory Committee for the Co-ordination of Information Systems (ACCIS) (1992) has issued "Information System Security Guidelines for the United Nation Organizations". This book aims to provide assistance to managers in the United Nations organization who are looking for adequate and cost effective security for their information systems. Moreover, The Trusted Computer Security Evaluation Criteria (TCSEC), and The Information Technology Security Evaluation Criteria (ITSEC) provide the criteria that should be considered in evaluating the security aspects of accounting software packages (Abu-Musa, 2001; Solms, 1996)

In the UK, "The Code of Practice for Information Security Management" was published in late 1993. Later, this code of practice was transformed into a standard (The British Standard BS 7799). The main objective of both initiatives is to provide a common basis for companies to develop, implement and measure effective security management. In addition, there is the Data Protection Act, issued in 1987 and revised in 1998.

In Germany, The German Accounting Information Security Agency (Zentralstelle für Sicherheit in der Informationstechnik) published in July 1989 its "Criteria for the Evaluation of Trustworthiness of information Technology Systems" (for more details, see Roux, 1991, P. 61).

2.2.10. OTHER ACCOUNTING SOFTWARE FEATURES

There are many other important features that should be considered when selecting among alternative accounting software packages such as: the programming language used to develop selected accounting software products; The number of the customers using the accounting software that might represent of the popularity of the accounting software in the market; the useful links to the third-party applications on web pages; application hosting; and the size of the vender's company (Figure 2).

2.3. IT ENVIRONMENT AND INFRASTRUCTURE

Many organizations often seek to find an accounting software solution that will run on their current computer equipment. The problem with this approach is that it backwards; it puts the cart in the front of the horse. The best way to proceed is to find the accounting software product that best meets the business' needs, and only then find the best hardware to run it. If an organization's current hardware can be utilized, that does greet. If your current hardware is inadequate, then you should purchase a new hardware. The hardware is by fare the least expensive component whit it comes to implementing a new accounting system. Chances are

very good that if you need to replace your accounting system, then it also time to replace your hardware anyway (Collins, 25 steps to select accounting software).

The new software will dictate hardware equipments. If user's computers are old, they may need to reinvest. Network upgrades may be necessary, based on the system compatibility requirements of the new software (Soukup, 2000).

2.4. VENDOR RELIABILITY

Availability of reliable local vendors is important. In case that the vendor does not have local staff in place, it should have strategic relationship with third party firms to provide training and consulting services, as well as technical assistance. Regardless the goodness of the accounting software, users still must rely on continued support from the vendor. For this reason, in selecting accounting software one should assure the vendor is reliable, has the resources to meet your requirements and will be available when needed.

West and Shields (1998) mentioned that the accounting software package vendor would become a strategic partner of the organization for many years, so the selection process should investigate the ability of the vendor to support the future needs of the organization and, in effect, drive the use of future technologies to support the business processes. Collins (1999) confirmed the meaning that many of first-time accounting software users are inclined to disregard vendor reliability-focusing primarily on the product's quality, price or both. However, selecting a product and then entrusting it with all organization financial data is not unlike the goals of a marriage: one want a fruitful, long-term relationship. Once the product is installed, the customer depends on the accounting vendor to supply updates for payroll taxes, sales taxes and even depreciation rates. The customer also must rely on the vendor to fix the inevitable bugs, provide support and continually enhance the product to run on the latest platforms and operating systems. The continued success of the accounting software vendor has a direct bearing on the customer's continued success with the product.

CONCLUSION

The steady decline in the price of the information technology and the increasing availability of "off the shelf" accounting software have led many organizations of any size to automate all or part of their accounting functions. Therefore, selecting the most appropriate accounting software package which satisfies an organization's current and future needs has become an important issue. The paper introduced an integrated framework of the main factors that should be considered in the selection process among the alternative accounting software packages. The proposed framework would help in understating and assessing the perceived accounting software futures that should be considered in selecting the most appropriate accounting software that might match an organization's current requirements and future expectations.

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