CHAPTER TWO

LITERATURE REVIEW

2.1 Background of small and medium companies
Small and medium business companies exist everywhere. It was only during the 1980s that small and medium companies begin to enjoy more esteem and prestige than before due to their ability to invent new products and creating new jobs (Siropolis 1990, p.6). Small and medium companies are generally set up with savings from the proprietors and/or borrowings from relatives or friends (Chee Peng Lim 1986, p.2). The mobilisation of personal savings for setting up such companies introduces additional capital and savings into the nations’ economy.

In turn, small and medium companies have become increasingly important among developing countries, including Malaysia. The National Chamber of Commerce and Industry Malaysia (NCCIM) president Tan Sri Tajudin Ramli recently quote that “small and medium sized enterprises are important to the country as they contribute 70% to the gross domestic product “(Business Times 24 Sept 1999, p.2).

Numerous policies and measures have been taken by governments to promote the setting up of such companies in their countries (Siropolis 1990, pp.7-8). In Malaysia, the Ministry of Entrepreneur Development was formed on 8 May 1995 with the main objective of developing small and medium entrepreneurs through its vendor development program to cater for large multinationals. In addition, the Small and Medium Scale Industries Development Corporation (SMIDEC) was established on 2 November 1995 with the aim of promoting and accelerating the development of small and medium scale industries (SMI), particularly in the manufacturing sector.
The future potential for local small and medium companies is also projected positively. Citibank (M) Bhd, for example, expects their loans to these companies to increase from present RM680 million (1999) to RM1.3 billion in 2000. Citibank's setting up of CitiBusiness to cater for small and medium companies' loans and needs in May 1998 shows the small and medium companies' importance to Citibank (NSTP Business 27 October 1999, p.21). IBM (M) with its 30 solution providers recently launched a market initiative specifically targeting at this market. An online facility called the IBM Small Business Centre web site (http://www.ibm-com/my/smallbusiness) was set up to provide information on technology and advice to these companies in non-technical terms (NSTP Business 26 October 1999, p.23).

2.1.1 Definition for small and medium companies

There is no universally accepted single definition for small and medium companies. There are different definitions in different countries at different points in time. Within a country, the definition might change over time, depending on the economic environment prevailing in that country.

In Malaysia, there is no formal definition for small and medium companies (Chee Peng Lim 1986, pp.2-3). Different definitions for small and medium companies are adopted by different government agencies. For example, the Ministry of International Trade and Industry (Miti) define small, medium or large companies based on the registration of manufacturing firms under the Industrial Co-ordination Act, 1975 (amended 1986). Under this Act, companies under the small and medium category are those with paid up capital of less than RM2.5 million and/or those employing less than 75 full-time employees. The Credit Guarantee Corporation (CGC) defines a small company as one with paid up capital and resources not exceeding RM200000 for Malay-based companies (called Bumiputera companies) and RM100000 for non-Malay based companies (called non-Bumiputera companies).

Previous studies done on these companies also use different definitions. Ismail Muhd. Salleh (Ismail Muhd. Salleh 1990, p.1) categorised industrial
enterprises into four main categories-tiny, small, medium and large based on the number of employees. Choo Sau Ling (Choo Sau Ling 1997, p.27) used the definition adopted by Miti based on the Industrial Co-ordination Act, which is based on the amount of paid up capital of up to RM2.5 million.

Two studies conducted previously by the World Bank (World Bank 1984, p.4) and United Nations Development Organisation (UNIDO 1986, pp.15-16) used the employment size as the basis for its definition. Their definitions are:

- Small-scale business : 5-49 employees
- Medium scale business : 50-199 employees
- Large scale business : 200 employees and above

An article from BSR journal (Voss, Blackman, Cogliano, Hanson & Wilson 1998, pp.1-19) put an even more narrow definition by including the micro classification for companies. The classification is as follow:

- Micro companies : 5-20 employees
- Small companies : 21-50 employees
- Medium companies : 51-200 employees

For the purpose of this study, employment size will be used as the definition for small and medium companies. Small and medium companies are defined as companies that employ between 1-199 full-time employees. This is based on the notion that small and medium companies would not reveal their actual financial standings for research purposes, to an unknown person. This is also in line with the fact that employment size had been proven to be useful in previous studies involving such companies in developing countries (Matthias & Hiemenz 1984, p.3).
2.1.2 Limitations and risks of small and medium companies

An often-cited requirement for business success is the adequacy of resources (Broon 1971, pp.73-74). The issue faced by small and medium companies is the amount of resources available to them. They normally have relatively little financial and human resources, as compared to large companies (Lam Kwai Wing 1989, p.5). This effectively restrains it from adopting long-term plans that need large amount of financing (Cohn & Lindberg 1974, p.2). Activities are often carried out with minimal budgets. All expenses allocated for these activities have to be weighted carefully because small and medium companies have very little reserves to withstand any major mistake or misjudgement. This lack of resources makes it difficult for small and medium companies to employ advanced techniques such as a sophisticated, computerised system (Lam Kwai Wing 1989, p.6). It is very challenging even for them to be able to manage a computerised accounting system in an environment of constrained resources (Greenberg 1998, pp.SR6-SR14).

Financial institutions and trade creditors further aggravate this issue by being unwilling to extend credit facilities to small and medium companies. With limited resources, the owners of small and medium companies would perform most of the functions in the company in order to reduce costs (Wood 1972, pp.23-25). Liew Kit Kong proved this in a local study. In his study (Liew Kit Kong 1992, pp.55-56) on the management of local small and medium sized construction and engineering design services firms, he found out that the owners-managers performed:

- 90% of the sales and marketing activities
- 67.1% of human resource management

He also found out that 50.1% of the owners-managers are directly involved in the daily routine operations of their companies.

In many cases, the owner might not have all the necessary expertise to perform most of these functions. This results in mistakes being made, although not often (Wood 1972, pp. 23-25). In the current competitive environment, they cannot always compensate for even small mistakes. With
limited resources, the pressure on small and medium companies to avoid mistakes is greater. Large errors can result in enormous losses of time and money and even the business itself. For small and medium companies, only a small margin of error is allowed, as every decision counts significantly (IBM web site 1999, p.1).

2.1.3 Criteria for success
According to Broon (Broon 1971, pp.91-92), one of the pre-requisites for the success of all companies is the use of modern management techniques like Research & Development (R&D) and planning. Even small and medium Japanese companies have been advised to adopt these new, modern, management techniques (Japan Small Business Research text 1997).

Closely related to planning is the use of information. Apibunyopas (Apibunyopas 1983, p.104) found in her study that there is a significant positive relationship between the number of records kept and the return on investment. Businesses that keep more records are able to enhance their management ability. Abdul Aziz Mahmud also found that there is a significant association between the preparation of cost control accounts and the rate of success in business (Abdul Aziz Mahmud 1981, pp.148-153). Firms that prepare financial statements such as profit and loss statements and balance sheets, tend to be more successful than those that do not.

Hence there is no denying that a computerised accounting system that allows companies to easily and frequently produce such financial statements, provides competitive advantage for any company in the new, dynamic and highly competitive environment (Sim & Teoh 1997, pp.57-73).

2.2 IT usage in accounting
Nowadays, many organisations use IT in planning, recording, controlling, communication and as a general office system. IT plays a substantial role in the operations of any typical organisation (Andersen 1986). In fact, much of
these usage on the operations are in the areas of finance and accounting (Bischoff & Downsland 1982, p.271).

Accounting professionals were one of the first major markets to embrace IT with the advent of the affordable and effective computerised spreadsheet. Computerised accounting initially gained widespread use in the US during the 1960s on mainframe computers (Lorentio 1996, p.37). Accounting software actually pre-dates the introduction of the IBM PC and Apple Macintosh.

Initially, these software developers wrote the software for a particular company. The software later proved to be successful and there was demand for the software. This prompted the developers to take the software to the public where the software was marketed on a full scale (Cohn & Bellone 1997, pp.18-36). Over the years, computerised accounting systems had become easier to use (Cohn & Bellone 1997, pp.18-36). Initially, accounting software is primarily designed for managing general ledger, accounts payable and receivable entries and distributions. Currently, accounting software often handles managing information for business operations above and beyond basic accounting functions. With compatible software, the computerised accounting system makes it easy for any end user to browse and manipulate on the monitor any conceivable set of transactions, as compared to manual accounting system (Moskowitx 1995, p.1).

Large companies were the ones that first set the trend for computerised accounting systems. However, over the years examples of increased efficiency had brought small and medium companies into this trend. Small and medium companies are now following the examples set by large companies in going paperless, and this trend is rising. Vendors now turn their attention to the small and medium market, with new releases that are innovative and thoughtful features to remain attractive (NSTP Business Computing 3 November 1999, p.26)
2.3 Computerised system for small and medium companies

2.3.1 Analysing the needs

To achieve competitive advantage (as mentioned earlier), it is necessary for small and medium companies to have an effective accounting and financial management systems. The system need not be highly elaborated (Drucker 1974, p.654). Having the appropriate and effective computerised accounting system will in turn provide the right information - quickly and accurately. This can make the difference between a profitable operation and one that struggles to survive (IBM web site, p.1).

But in the rush for such a system, small and medium companies must also recognise the possible pitfalls. This is because the selection, installation and complete operation of any accounting system are major steps for these companies. There is also a risk attached to the introduction of such system. Failure would result in frustration or complete catastrophe. So before small and medium companies embark on a computerised accounting system, they must analyse whether such automation is necessary. Key points to consider include: automation is not the solution for business inefficiency and automation should not take precedence over their employees since employees are the contributors to the company (Chewning 1997, p.1).

However, on the opposite end are benefits that can be reaped. By automating their financial and accounting systems, several immediate advantages can be realised, among which are (IBM web site, pp.2-3):

- Managing accounts receivable and payment terms more effectively. Small and medium companies can easily identify accounts that pay up on time and those who do not
- Ensuring that bills are paid on time, but not too early. The company can protect their credit rating without letting their creditors earn interest on the money that they can put to work for other purposes

In the end, after weighing all benefits and disadvantages, companies need to understand what they need to do well to succeed in the market and organise
themselves for success. Automating the accounting system would help small and medium companies achieve competitiveness as mentioned earlier, but they must keep in mind that the automated system alone would not ensure success (Chewning 1997, p.1). Once they had thoroughly identify the need for the accounting system, they can then proceed to the selection stage.

### 2.3.2 Types of system and software

Any company contemplating the use of a computerised accounting system can either select a standard or customised accounting software. In general, both these types of software focus on (i) General Ledger, (ii) Accounts Payable, (iii) Accounts Receivable, (iv) Inventory Control, (v) Payroll and (vi) Job Cost (CTS Guide 1998). Basically these important functions are needed for jobs such as accounts reconciliation, facilitating general journal entries and cash flow reporting.

#### 2.3.2.1 Standard software

Standard software is a direct purchase from the shelf; which can be plugged in immediately for use. Standard accounting software sold in Malaysia are generally imported products like UBS or M.Y.O.B. Small and medium companies normally stress on (a) pricing, (b) capacities and capabilities, (c) support provided and (d) who the vendor is, whenever they intend to make a purchase (CTS Guide 1998).

There are various types of standard software available in the market, ranging from the low-end to high-end. **All standard software basically offers similar features.** Examples of these software are shown in Table A:
<table>
<thead>
<tr>
<th>Software type</th>
<th>Business characteristics</th>
<th>Cost range</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-end General ledger</td>
<td>Small transaction set and no special information needs</td>
<td>Less than USD$2000</td>
<td>Peachtree, QuickBooks, Profit, M.Y.O.B., Simply Accounting</td>
</tr>
<tr>
<td>(Entry level)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle to High-end</td>
<td>Moderate to large transaction set with some special information needs</td>
<td>USD$2000-30000</td>
<td>AccPac, ActPlus, Cyma IV, Business Works, MAS90, Solomon, Cougar</td>
</tr>
<tr>
<td>Modular</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A: Examples of accounting software types (Bagranoff 1999, p.77)

With reference to Table A, AccPac for Windows Small Business Series is from AccPac International whereas the Business Works Version 12 is from Sage Software. Cougar Mounting Accounting software is created by Cougar Mountain (Davis 1999, pp.48-56). Intuit (Canada) produces the QuickBooks series that are designed specifically for small business owners with little or no accounting experience (Feldman W & Feldman P 1999, p.62).

Simply Accounting software, also from AccPac International, is designed specially for beginners in double entry accounting (Salmon 1996, abstract). M.Y.O.B. Accounting Plus 8.0 by Best Ware Corporation does a creditable job of shielding users from the mysteries of double-entry accounting while offering the essential components of a small business accounting system (Schwartz 1999, p.37). Another popular standard software is UBS. In Malaysia, UBS is distributed by UBS Corporation (UBS Corp. web site 1999 at http://www.jaring.my/ubs/profiles.htm).
2.3.2.2 Customised software

On the other hand, customised software is one that the company develops themselves or with the assistance from vendors. Customised software is developed specially to suit the individual needs of the company (Subject, Wills & Company web site 1999 at http://www.swc.com).

A review on two local vendor companies specialising in customised accounting software shows that the range of applications and services offered are basically similar. These vendors specialise in customised accounting software using both DOS and Windows applications. Basically, they provide consultation, training and support, in addition to a time period guarantee for all their products (http://www.abyres.com and http://www.jaring/eic/mit).

2.3.3 Selection

In theory, the business of selecting a new accounting system should be getting easier, as technology progresses over time. But in reality, software products are becoming increasingly more sophisticated, with more powerful functions capable of processing more and more aspects of company administration and management (Tate 1996, p.11).

In addition, there is a huge number of accounting software available in the market – there are over 800 boilerplate small business accounting software packages (Milgrom, Rosner & Company web site 1995, p.1). One reason for this is that the business for these companies is very diversified. Their business operations, procedures and functional areas are very different amongst themselves. Every such company has their own ways of doing things, even for a single purchase order. Vendors, who found this market most challenging, has increased the number of software and its degree of sophistication (NSTP Business Computer, 3 November 1999, p.26).

With so many types available, there is no one best software that can suit the needs of every individual company. In most cases, small and medium
companies rely mostly on a salesperson to help them choose the accounting software. This is not effective because in most cases, the salesperson is not familiar with accounting. They promote only the company products with a profit motive. The small and medium company would end up with the software that the salesperson is eager to sell, rather than the suitable software that they need (Milgrom, Rosner & Company website 1995, p.1). In addition, there exists software tools that claims to "help people wade through the often daunting task of selecting an accounting software" (Roe 1999, pp.149-150). In reality, these software tools only promote certain types of software because the tools normally contain a limited number of software to choose from, after the intending purchasers (small and medium companies) had keyed in their preferences that suit their own needs.

Ultimately, it is the proprietor or the management of small and medium companies who must do all the necessary research. They can get the initial help and advice from the salesperson or professionals such as accountants or friends (Wood 1999, p.1). Ideally, this should be done when they commence the business since they can create their business plans and accounting requirement simultaneously (Sibley 1998, p.1).

The research for selection of software mentioned earlier should include:

- an analysis of the needs of the company
- developing a comprehensive selection plan with the involvement of certain key people (including the setting up of the system and training)
- the expected benefits to be reaped
- a time period for the accounting system implementation and finally a set budget as a guideline (Chewning 1997, pp.2-6)
The key people involved in the selection of the system should include the end users because ultimately, the system's effectiveness is determined by the end users of the system (IBM web site, p.5). By doing this research, the proprietor or management of small and medium companies can justify their decision on the need for the system (Accounting.Org web site 1997, FAQ section).

Another important factor is the total costs involved. The costs involve all incidental expenses and not just the cost of the accounting software. A survey carried out in 1998 (Tate 1999b, p.50) covering 300 senior finance staff in USA shows the actual expenditure breakdown on a new system implementation as:

<table>
<thead>
<tr>
<th>Proportion spent on</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Pre-sales consultancy and advice</td>
<td>11.74</td>
</tr>
<tr>
<td>Accounting software</td>
<td>31.64</td>
</tr>
<tr>
<td>Implementation</td>
<td>28.27</td>
</tr>
<tr>
<td>Training</td>
<td>14.12</td>
</tr>
<tr>
<td>Other services</td>
<td>14.24</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.00</strong></td>
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The survey result shows that the cost of the accounting software is the highest component, at 31.64%. Although the software cost is the highest, purchasers these days emphasise more on quality and features of the software, rather than the price (Wood 1999, p.6). In fact, price is not a good indicator of the software quality (Waterman 1997, p.2). Software that sells at an incredibly low price and provides certain free technical service is just a marketing ploy by software vendors, in reality. On the other hand, paying for an expensive software does not ensure that the small and medium company obtains the best and most suitable software (Waterman 1997, p.2-3).
2.3.4 Current features for the desired accounting software

At present, PC based accounting products dominate the market through its popular Windows and Windows NT applications (Honig 1999, pp.14-20). But there is still a market for DOS based applications (Waterman 1997, p.2).

Regardless of whether it is PC or DOS based packages, certain key features are often desired. One of them is the vendor's ability to provide appropriate user service and support for hardware and software (Moskowitz 1995, p.1), especially for small and medium companies with limited resources. It is very helpful if vendors can provide annual support at reasonable rates. In a way, it is good to have a productive relationship with the vendor such that the vendors are treated like a partner (Wood 1999, p.9).

Training is another key feature for success. Initial training must be given to those without any prior computer experience. For those with some basic knowledge, a refresher course is appropriate (Chewning 1997, p.4). Training is crucial because one of the costs involved (refer to Page 17) in computerised accounting system is the amount of time and money any company has to invest for their employees to learn and master the system (Waterman 1997, p.2).

The ability for the selected system to "migrate" to a newer, better system in the future is also important. As small and medium companies grow, they will need faster and more powerful computers, which enable easy transferring and processing of accounting files and data. Systems with no clear migration path would leave them remaining with their outdated systems, over time. Alternatively, the companies will have to re-purchase another system with the ability to "migrate". This in turn will force expensive re-keying of old data and re-training (Moskowitz 1995, p.2). So if there is a need for migration, then it is imperative to select applications for migrations at the same time the software was selected (IBM web site, p.5).
In addition, the selected systems must be Y2K compliant. This is the latest issue surrounding the IT community as it is predicted by experts that the Year 2000 is likely to bring a substantial impact on a country’s economy (Y2K Millennium Bug Information Source). Small and medium companies can avoid all these unnecessary problems associated with Y2K bugs if their software and hardware purchases are Y2K compliant.

Other desirable features to aid users in their work are ease of installation, user friendly interfacing, flexibility (can do multiple functions simultaneously), good retention of detailed history records, ease of use of the software and lastly reliability of the system (Hornal 1998, pp.1-9). In addition, the recent trend in the market is for software developers to offer business accounting software that complies fully with the general accepted accounting principles (GAAP) (Salmon 1996, abstract).

2.3.5 Expected benefits
A good computerised accounting system, when implemented, can provide benefits to the small and medium companies. Generally, automation can increase the productivity of accountants, bookkeepers and those handling the accounting system. Although this does not necessarily translate into reduced manpower, it can result in a decreased demand for adding new personnel in these areas (Wood 1999, p.9).

Several forms of efficiency can be realised (IBM web site, p.2). This includes (a) reduced paperwork with the system producing purchase orders, invoices and payroll cheques, (b) getting better information with the system generating tracking and summary reports and (c) accessing quickly into current information by keeping very specific data about any particular work, vendors and customers in automatically updated files.
All these are important benefits in particular (b) and (c). Small and medium companies can manage their inventory effectively and stocking the right products at the right time in optimal quantity. In this way, they can meet their customers' expectations without tying up their cash resources, which are vital.

2.4 Summary

There is no doubt that most small and medium companies would need an automated accounting system. As technology becomes more prominent and users' needs become more sophisticated, small and medium companies need an accounting system that enable them to grasp their cash flow and other financial performance figures quickly to aid in their decision making (McCullum 1998, pp.46-48). The vast usage of IT in accounting is proven with the many accounting software packages developed. Vendors, who neglect small and medium companies in the past, are beginning to see the demand and hence, potential in the small and medium companies' markets (McCullum 1999b, pp.42-44). With such tie-up, the importance of accounting packages for small and medium companies cannot be denied. The increase in competition as a result of globalisation and the falling of trade barriers had forced even small and medium companies to adapt to new ways of reporting, one of the ways being a computerised accounting system. In a nutshell, small and medium companies contemplating on such system must (1) do their homework thoroughly, (2) not purchase a product base on a good review and (3) match it with a realistic budget (Gardiner 1998, p.5).