

SMALL AND MEDIUM BUSINESS ENTERPRISES AND THE USE AND ADOPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY: A STUDY OF LEGAL ISSUES AND LEGAL PERSPECTIVES

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ABSTRACT

Small and medium business enterprises comprise a large section of business community. These businesses are increasingly using and adopting information and communication technology (ICT) for business prosperity and growth. ICT is being used even in day to day transactions. Due to the extensive use of ICT, the small and medium enterprises (SMEs) have been exposed to risks where employees have copied or downloaded information relating to the business or customers. The use of ICT and electronic commerce (e-commerce) by small and medium business enterprises has raised legal issues and legal perspectives regarding the security and rights of the creators, owners and manufacturers of ICT.

In case of breach of law while using ICT, the courts have not only granted an injunction but also provided damages or called for an account of profits. The objective of this research is to outline various legal issues and legal perspectives that arise during the use and adoption of ICT by small and medium business enterprises for business purposes. This research also seeks to examine the factors for adoption of ICT and e-commerce by SMEs. This research is significant as it seeks to clarify the rights and obligations for small and medium business enterprises with respect to the use of ICT and e-commerce for business purposes and thus enhance and improve their capabilities.

Key words: Small and medium enterprises, information communication technology, legal issues.

INTRODUCTION

Small and medium enterprises (SMEs) account for more than half of all business and over half of all employment in developed nations including Australia and United Kingdom. Due to the advent of Personal Computers, cost-effective and cheaper ICT, small and medium enterprises are increasingly using and adopting information and communication technology (ICT) for business growth and competitiveness (WestFocus 2006). Use of ICT by these businesses involves considerable legal risks associated with the collection, use, transfer and storage of information and data. Use of ICT and electronic commerce by SMEs is the most discussed topic in business and financial markets today. SMEs are increasingly making use of ICT and the internet (Daniel et al. 2002). The objective of this research is to outline various legal issues, legal perspectives and implications for small and medium enterprises in their adoption and use of ICT for business purposes. This research is a part of a process of identifying rights and obligations with respect to small and medium business use of ICT which should help to reduce uncertainty regarding ICT implementation and increase the

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efficient and effective use of ICT (Lee 1999; Miles 1994). The research also identifies the risks involved in the use and adoption of information and communication technology by small and medium business.

Many small and medium business owners today are realising the importance of information and communication technology (ICT) and e-commerce to grow their business and expand their markets. About 91% of small and medium businesses own a computer and some 79% are connected to the internet, whereas only about 34% have a website (Yellow Pages 2002). Research also shows that small and medium business owners with uncertain attitudes to ICT are more likely to effect a poor quality implementation. This uncertain attitude has exposed some of the small and medium businesses to risks (Winston & Dologite 2002, pp. 16-29). Despite the exposure to risks, there has been little research on the small and medium enterprises owners' awareness of legal issues, legal implications and risks associated with the collection, use, transfer and storage of information and data (Lee et al. 1999, pp. 161-187). The purpose of this research is to outline the types of legal issues, legal perspectives and legal risks which the small and medium enterprises may face.

ADOPTION OF INFORMATION COMMUNICATION TECHNOLOGY AND ELECTRONIC COMMERCE BY SMALL AND MEDIUM ENTERPRISES: REVIEW AND RESEARCH METHODOLOGY

A small and medium enterprise (SME) is defined as a company with less than 100 employees (Campbell 2002). According to the Australian Bureau Statistics (ABS), small business is any business employing less than 20 people and a medium business is any business employing 20 or more, but less than 200 people (<http://sbdc.gov.au>). Use and adoption of electronic commerce and ICT leads to greater chances of obtaining business opportunities. An adoption of ICT has led to the prosperity of electronic commerce. It also leads to several opportunities to secure government business. More and more SMEs are using ICT to improve their business capabilities and to increase their profit margin. Due to the use of ICT, SMEs are able to improve their efficiency, accuracy and reduce costs. Further, SMEs will be in a position to provide faster, more reliable and convenient services due to the use and adoption of electronic commerce and ICT. SMEs will be able to enter the market and participate in business at lower cost. They can also work with greater efficiency in the new market and larger firms are able to evaluate, select and more readily work with other businesses both at national and international level (Summers 1997).

LITERATURE REVIEW AND RESEARCH ANALYSIS

According to Kalakota and Whinston (1997) electronic commerce means 'the buying and selling of information, products and services via computer networks' and the computer networks primarily consist of the internet (Kalakota & Whinston, 1997). Information Communication Technology and electronic commerce include not only the buying and selling by SMEs through internet but also the use of internet technologies such as intranets and emails to exchange or share information either within the enterprise or with external stakeholders (The Cabinet Office 1999). ICT and electronic commerce are not simple innovations but rather a cluster of separate innovations (Prescott & Conger, 1995; Van Slyke, 1997; White et al, 1998). SMEs may choose the use of ICT and electronic commerce (Hamill & Gregory 1997, Webb & Sayer, 1998, Dutta & Evrard 1999; Poon & Swatman 1999).

Empirical studies have shown that a large number of factors affect the adoption of electronic commerce and ICT by SMEs (Brooksbank, Kirby & Kane 1992; Kirby & Turner 1993; Julien

& Raymond 1994; Iacovou, Benbasat & Dexter 1995; Thong & Yap 1995; Harrison, Mykytyn & Rienenschneider 1997) Based upon research analysis and reasons which facilitate adoption of e-commerce and ICT by SMEs (Akkeren & Cavaye 1999) the following are some of the factors (Harker & Akkeren; Rodman 2001) which may be identified for the popularity and adoption of ICT by SMEs:

- Perceived Benefits: The perceived use and usefulness of ICT by SMEs creates a positive attitude for the adoption of ICT (Iacovou et al. 1995; Kirby & Turner 1993; Thong & Yap 1995).
- The computer literacy of the business owner or manager and the SMEs influences the adoption of ICT (Kirby & Turner 1993; Thong & Yap 1995).
- Level of assertiveness, rationality and interaction of business decision processes has an impact on the adoption of ICT. If the owners or managers of SMEs are assertive in making business decision, understand the benefits, significance and uses of ICT and electronic commerce and are able to rationalise that information, then they are more likely to adopt ICT (Julien & Raymond, 1994; Harrison et al. 1997; Reimenschneider, 2000).
- Perceived control: This relates to the amount of resources such as time, money, skills, and co-operation of others, which SMEs may possess to be able to carry out successful adoption of ICT. SMEs may decide that for adoption of ICT, connection to internet is an important task (Fuller 2000; Department of Communication Information Technology 2000). However, due to shortfall of budget or lack of time or lack of understanding of ICT, their decision to adopt ICT may be greatly influenced (Harrison et al. 1997).

RESEARCH METHODOLOGY

Doctrinal research has been undertaken and documentary material has been researched. In 'Law and Learning', commonly known as the Arthur's Report, the Report to the Social Sciences and Humanities Research Council of Canada, seven research methodologies in legal research are identified. One of them is doctrinal research which involves detailed analysis of existing legal doctrine, literature, statutes and cases (Neuman 1997). Legal and doctrinal research was conducted extensively and material such as books, legislation and articles from law libraries and other libraries at various universities in Victoria and Australia was collected. Material related to SMEs, Information Communication Technology and electronic commerce in Australia and other countries was collected from law, ICT and management journals along with material from newspapers and websites. A study of relevant legal principles, precedents and legislation was also made. Refereed articles have also been utilised from journals and online databases. After collection of documentary research material, the material was analysed, interpreted (Welman & Kruger 2002) and critically examined in relation to the adoption and use of ICT and electronic commerce by SMEs. An analysis of cases and precedents has also been made, wherever applicable. Based upon the documentary sources as resources for research, (Collis & Hussey 2003) legal issues, legal perspectives, implications and risks have been identified and analysed. The relevance of the legislation, the factors for adoption of ICT and use of electronic commerce by SMEs has also been identified.

THE RISKS INVOLVED IN THE USE OF ICT: LEGAL ISSUES AND LEGAL PERSPECTIVES

The use of ICT by small and medium business has legal implications and has raised legal issues and concerns regarding the security, protection and rights of the creators, owners and manufacturers of ICT (Australian Bureau 2001). SMEs do face problems while using ICT.

Some of the problems relate to security, hacking, infringement of copyright or inadequate copyright protection over the internet. These act as huge setbacks to SMEs business and trade and ultimately loss of trust in such business. According to International Intellectual Property Alliance due to inadequate copyright protection over the Internet, copyright-based industry, which includes SMEs, has suffered a loss of \$10.7 billion. The motion picture and music companies have lost \$ 1.8 and \$ 1.2 billion respectively. Further, the Computer program and books account for the rest of the loss (Siegmond 1998).

In case of breach of law while using ICT, the courts have not only granted an injunction but also provided damages or called for an account of profits. In some cases the courts have also granted additional damages and provided private civil actions for the owner of copyright in the ICT (Reynolds & Stoianoff 2003, pp. 24-41). Further, some offences may also attract imprisonment upto 5 years.

Until recently the most popular methods of payment in small and medium business was cash or cheque. ICT is now replacing the traditional system of payment and payments are accepted over the internet (Beregon & Raymond, 1992, pp. 21-26). However, such payments are exposed to risk. The absence of documents and the frequent use of ICT and electronic transfers by small and medium businesses have created new challenges for the legal system and legal protection needs to be extended to such electronic payments (Julien & Raymond, 1994 pp. 79-90). There have been instances, where small and medium businesses have recorded and stored information relating to their customers on the computer and eventually sold information and consumer profiles to other businesses and marketing firms without any licence or permission from the customers (Marshall 1997). The only control on privacy of clients in a business in general and a small and medium business in particular relates to credit providers and the use of information relating to the credit worthiness of an individual. This control is not sufficient to meet the challenges of ICT (Hughes 1997, p. 25). In Australia the Government encourages extension of Information Privacy Principles (IPP) to small and medium business. Accordingly, small and medium business could only use information gathered about an individual for whom the information was collected (Attorney 1996).

SMALL AND MEDIUM BUSINESS AND RISKS RELATED TO CONFIDENTIAL INFORMATION: LEGAL ISSUES AND PERSPECTIVES

Small and medium business using ICT is also exposed to risk from dishonest employees, who have access to the business policies and client list. There have been instances, where the employees have downloaded confidential information into the zip file of their laptop in the course of employment including client contact list and pricing policies. This information has been used later by the employees in their own small and medium business. In such cases, the employees have resigned from employment only to set up their own small and medium business at the cost of the original business. Under these circumstances, the courts have not hesitated to grant injunction, prohibiting the new business from entering into contracts with the clients listed in the contact list as seen in *Champion Technologies v Raymond Smith and Dunlaw Subsea Markers limited* (2002, p. 18). In a number of cases, employees have obtained valuable skills and work experience and accessed technical trade secrets and confidential information regarding the employer's business and left the employment to start their own small and medium business. Such information and ICT has been used by the small and medium business damaging the earlier employer's business. In these circumstances, the Common Law or equity has also restrained the small and medium business from the use or disclosure of confidential information (Stewart, 1988, pp. 1-3) and the doctrine of breach of

confidence has been effectively applied as in *Ocular Sciences Ltd v Aspect Vision Care Ltd* (1997, p.289) and in *Faccenda Chicken v Fowler* (1987, p. 137).

Information relating to a small and medium business may be necessary to run the business effectively (Smedinghoff, 2005, pp. 9-25). Such confidential information may be categorised as follows:

- a. Commercially valuable information,
- b. Personal information and
- c. Government information.

Commercially valuable information is very important for a small and medium business and it comprises of trade secrets and business information (Reynolds & Stoianoff 2003, pp. 520-521]. In *Faccenda Chicken Ltd v Fowler* [(1987, p. 137), Faccenda Chicken who were the plaintiff engaged in a business of breeding and sale of chicken. Mr. Fowler, the defendant was employed as one of the Sales Managers of the company Faccenda Chicken. After serving as an employee for eight years, he left the company and set up his own business of sale of chickens. However, he took the information relating to the customers of the company. The company brought an action against him alleging that Mr.Fowler had wrongfully made use of the confidential information relating to their business. The Court of Appeal held that Mr.Fowler could not be stopped from carrying on the business of selling chicken and the information could not be treated as confidential as the information becomes a part of the knowledge and skill of the employee.

In a later case, *Forkserve Pty Ltd v Pacchiarotta* (2000, p.74) the court has held that an employee cannot remove, whether by using paper or using memory, a material part of the employer's business records. Further the court has specified that an employee can approach a customer or client without using a list of customers obtained from the earlier business. This principle has been recognised even in *Peninsula Real Estate Ltd v Harris* (1992, p. 216). Due to the extensive use of ICT by small and medium business (Pollard, & Hayne, 1998, pp. 70-87), the business has been exposed to risks where employees have copied or downloaded information relating to the business or customers (Carroll and Schrader 1995, pp. 183-211). The courts have come to the rescue of the small and medium business by prohibiting the use of such information by the employee, only when the employee has left the employment or such information has been considered as confidential.

SMALL AND MEDIUM BUSINESS AND RISK OF CLIENT CONTACT LIST TRANSFERRED TO ANOTHER COMPUTER: LEGAL ISSUES AND PERSPECTIVES

Very often small and medium businesses maintain a list of their clients for effective business. In *Champion Technologies v Raymond Smith* (2002, p. 18) the first defender, Mr Raymond Smith in the course of his employment with the pursers Champion Technologies, downloaded and obtained the client contact list and transferred the list to a zip file on his laptop computer. He subsequently transferred the contact list into the office computer of the second defenders, DunLaw Subsea Markers Limited. In addition to the contact list, he also copied and transferred confidential information relating to the pursers' pricing policy. Later hard copies of the client list as well as pursers' pricing policy were printed. The pursers had a well established business with more than 30 years of experience and they also maintained excellent general reputation. The pursers manufactured and supplied subsea markers, which is a specialist product used in the oil exploration and assists the divers to locate and identify

installations. During the course of trial it was also found that the first defender was also under the employment of the second defender.

The pursers brought an action against the first and second defender for breach of confidential information and for removal of the confidential information from the computers of the second defenders. Though the second defenders disclaimed any intention to use that information, they refused to take steps to return that information to the pursers and to assist in the removal of that information from their computer. Since the second defenders were unwilling to return or destroy the information transferred to their computer by the first defender Raymond Smith, the court granted interim interdicts prohibiting both defenders from copying or using confidential information obtained by Raymond Smith, the first defender, in the course of his employment with the pursers. Further the court prohibited the defenders from entering into or performing contracts with the persons named in the contact list. It also prohibited them from contacting such persons or attempts to sell their products to them.

USE OF FLOPPY DISKS FOR COMMERCIAL OR BUSINESS PURPOSES AND RISKS INVOLVED: LEGAL ISSUES AND PERSPECTIVES

Most businesses store data and business information on floppy disks, exposing such information to risks. Subsistence of copyright in a drawing of a single letter and existence of copyright in a computer printout of a written work, originally created on a floppy disk was discussed in a business relating to *Roland Corporation and another v. Lorenzo and Sons Pty Ltd* (1991, p. 245). The first applicant, a Japanese company made musical equipment such as electronic synthesisers and the second applicant was its Australian distributor. The respondent, an Australian company sold by mail order, musical equipment's under the name of "Pro Audio".

The respondents sent catalogues and photographs of equipment to its customers. Thus, Roland claimed copyright in two logos, photographs and manuals. It also claimed that Lorenzo was infringing its copyright by making catalogues, which included the logos and photographs and also imported into Australia Ronald's manuals without any licence. The applicants alleged that the contents of the respondents catalogues included copyright material belonging to the first applicant, which consisted of two logos called 'R device' and 'B device'. They also alleged that the photographs distributed by the respondent were copied from the applicant's material.

The applicants contended that the respondent had directly infringed the rights of the applicants and also infringed the copyright by importation of manuals into Australia for the purpose of trade, without a licence. The work in relation to the manuals was first stored on a disk before being printed out. Thus, when a work was stored on a computer, it was reduced to a material form. It was held that a person or small and medium business copying, not from a disk but from a printed manual also infringes the copyright of an owner (Templeton 2006). Thus, under section 31 of the *Copyright Act 1968* (Cth), copyright in the content of the disk includes the right to reproduce the content of the disk in any form of storage from which the work can be reproduced. Thus the court held that, the first applicant had copyright in each of the manuals and such a copyright came into existence, when the contents of the manual first subsisted on a disk in the word processor. Hence, either copying the printout or any copy of the printout amounted to breach of the copyright. Further, the contents of the word processor disk were classified as literary work. Though the Federal Court held that the copyright subsisted in photographs and D-50 booklets, it held that no copyright subsisted in the R and B

devices. It also held that the importation of D-50 booklets amounted to infringement of copyright of the applicant.

THE USE OF WEB SITES BY SMALL AND MEDIUM BUSINESS AND RISKS INVOLVED: LEGAL ISSUES AND PERSPECTIVES

A small and medium business may end up in litigation by using the work available on the web site or providing a link from one web site to the other, without a licence or permission of the owner or author of the web site. Small and medium businesses frequently use ICT and web sites in their day to day transactions (Lin et al. 1993, pp. 25-31). Businesses have been held liable under copyright laws, when one business has accessed the home page of the other business without permission and licence from the original owner as seen in *Shetland Times Ltd v Wills and another* (Shetland p. 669). Infringement of copyright by small and medium business has affected even the Internet and the web site (Ford 1997, pp. 7-9). Internet being a world wide electronic system is used to exchange information, which may include text, photographs and advertisements.

Any person may advertise or provide information by setting up a web site with a web address and encroach upon the business and commercial activities of the other person. Protection of copyright law was extended to the web site of the business on the internet in *Shetland Times Ltd v. Wills and another* (Shetland, p.669) by the Scottish Court of Session in order to protect the business of the pursuer. In this case, a newspaper called "The Shetland Times" was published and owned by the pursuer. The newspaper carried local, national and international news and included photographs. The second defender published "Shetland News" and also provided news reporting service.

The Internet web site owned by the pursuer contained some of the articles published in its newspaper, under relevant headlines. The defenders also operated a web site of their own with news articles from their paper on their home page. But they also included headlines from the pursuer's web site, copied verbatim. Thus a link was established between the defender's and the pursuer's work. The browser could view the relevant news articles from the pursuer's web site without actual access to the pursuer's web site. Thus the homepage which belonged to the pursuer could be accessed without reference to the pursuer. The first defender was the managing director of the second defenders. On Friday, 11 October 1996, there appeared an item in Shetland Times, under the heading, "Bid to Save Centre after Council Funding 'Cock Up'". Financial difficulties of Fraser Peterson Centre in Shetland (Shetland, p.669-672) were highlighted in the item. The pursuers through their web site made available on the internet items including photographs, which appeared in printed editions of "The Shetland Times". By reference to headlines, the Pursuer stored items electronically. Access to the text could be gained by clicking on the relevant headline.

The pursuers intended to sell advertising space on the front page on their web site and provided their address as @ shetland-times.co.uk. The defenders also operated a web site with a web address bearing a heading, "The Shetland News". Since about 14 October 1996, the defenders also included headlines from "The Shetland Times'. Thus access could be gained to the pursuers items without accessing pursuer's site. Hence, pursuer's work was by passed. The Pursuer brought an action for infringement of copyright. The pursuers contended that, the headlines made available by them on their web site through their business were cable programs within the meaning of section 7 of the *Copyright, Designs and Patents Act 1988*, that the facility made available by the defenders on their web site was a cable program service

within the meaning of section 7 and that the inclusion of those items in that service constituted an infringement of copyright under section 20 of the Act. They also maintained that the headlines were literary works owned by them and that the defenders' activities followed in their business constituted infringement by copying under section 17 of the Act, the copying being in the form of storing the works by electronic means. Under section 7(1) of the Act (Copyright, Designs, 1988), "cable programme" included, "any item included in a cable programme service" and defined "cable programme service" as meaning a service which consist wholly or mainly in sending visual images, sounds or other information by means of a telecommunications system, otherwise than by wireless telegraphy, for reception

- At two or more places (whether for simultaneous reception or at different times in response to requests by different users), or
- For presentation to members of the public, and which is not, or so far as it is not, excepted by or under the following provisions of this section.

Subsection (2) provides that the definition of "cable programme service" includes,

- a service or part of a service of which it is an essential feature that while visual images, sounds or other information are being conveyed by the person providing the service there will or may be sent from each place of reception, by means of the same system or (as the case may be) the same part of it, information (other than signals sent for the operation or control of the service) for reception by the person providing the service or other persons receiving it.

While granting interim interdicts restraining the defenders, Lord Hamilton held (Shetland, p.669) that the incorporation by the defenders in their web site of the pursuer's headlines constituted an infringement of copyright by the inclusion in a cable program service of a protected cable program. Further, it was held that the defenders had also infringed copyright in the headlines as literary works by reproducing these on their web site. Since the defenders activities had just begun, no loss was sustained by the pursuer. Further, it was felt by the Court that, it was fundamental to the setting up by the pursers of their web site that access to their material should be gained only by accessing their web directly (Shetland p. 669).

SMEs AND DEVELOPMENT AND MARKETING OF ICT AND COMPUTER PROGRAMS FOR COMMERCIAL PURPOSES: LEGAL ISSUES AND PERSPECTIVES

Most SMEs use ICT and develop computer programs (Winston & Dologite 1999, pp. 26-38). Computer applications and programs are being devised and used extensively by SMEs (Malone 1985, pp. 10-16). However, doubts have been raised as to the adequacy of protection extended to the computer applications, owners of copyright in computer programs and the computer programmers (Brien, 1996, pp.69-86). In *Yoder v. Orthomolecular Nutrition Institute Inc., Henderson and Rothstein*, (Yoder, p.91) the plaintiff, Mrs.Yoder met Henderson, who expressed an interest in employing the plaintiff to assist in the development of the computerized diet program. Mrs.Yoder moved from Indiana to New York City with her two children in order to work for Ortho-Nutrix and promote a computerized individual allergy-free diet program. The defendant Henderson was the president of "Ortho-Nutrix", a publicly held Delaware Corporation with its principal office in New York. After a discussion with the defendant, Rothstein, who was the treasurer and a major shareholder of the defendant corporation, it was agreed that Ortho-Nutrix would purchase the assets of Healthful Living along with its name and goodwill and also the copyright and exclusive right to publications like the book entitled, "Allergy Free Cooking", recipes and other information developed by

the plaintiff in order to promote the computer diet program. In return, the corporation agreed to employ plaintiff for three years with a salary of \$40,000 per annum and a payment of 10% royalties on the sale of publications written by her and also to pay 10 percent royalties on the sale of publications written by the plaintiff and to issue upto 30,000 shares of Ortho-Nutrix stock based on the profits generated by the development of the computer diet program. Soon after, plaintiff's services were terminated by the defendants on the ground that she had been unproductive. The plaintiff moved the court for a preliminary injunction to restrain defendants from using Healthful Living's name, publications and other assets. The defendant, Rothstein alleged that the arrangement with the plaintiff related only to an employment agreement and not the purchase of her business and that plaintiff's employment had already been terminated.

While granting defendants' motion to dismiss, Judge Griesa held that the complaint of the plaintiff failed to state a cause of action under the federal securities laws and that the agreement was only an "employment contract" and did not constitute an "investment contract" (Yoder p. 91). As Mrs. Yoder was expected to be an active participant in the business, she only had an "employment contract" and not an "investment contract". The above decision makes us wonder as to what protection is available to the computer programs, which are being used extensively in SMEs in the absence of laws directly protecting the computer applications and the programs.

Another interesting case alleging infringement of copyright in a computer program by a business came up for hearing in *Software Arts (SAPC) v Lotus Development Corp. (Lotus)* (Software, p.692). In this case, one business purchased software business and its name from the other business, which was later challenged by the seller. The courts refused to question the legitimate rights of the business (buyer) in software. In the year 1985, Lotus Development Corp. purchased software business, which belonged to Software Arts (SAPC). It also purchased the Software Arts name, which it later changed to SAPC, as a part of the transaction. Within two years, SAPC filed a suit against Lotus, alleging that Lotus and its founder Kapor had infringed SAPC's copyright. Further, Lotus had also misappropriated trade secrets in the SAPC's program called "Visicalc" much before the sale of that copyright to Lotus. Affirming the judgment of the trial court, the Circuit Judge Brown held, that the Asset Purchase Agreement had unambiguously transferred or extinguished all of SAPC's rights and as a result of the transaction, Lotus had acquired rights related to the computer program "Visicalc" also. Thus, as a part of transaction of sale Lotus had acquired all rights to the Visicalc program (Software, p. 692).

SMEs AND USE OF ICT: BUSINESS IN COMPUTER PROGRAMS

Until 1984, the rights of owners of copyright in ICT, computer programs, electronic commerce, web sites and Internet were not dealt adequately in Australia. The existing copyright laws were found inadequate to extend protection to the works created by the use of a computer. It was only in 1984, that the *Copyright Amendment Act 1984 (Cth)* amended the *Copyright Act 1968 (Cth)* to protect the works created on a computer. For the first time, the term "Computer Program" was incorporated in the definition of the Act (Copyright, 1984). The question of infringement of copyright in a computer program was debated in *Powerflex Services Pty Ltd and Others v. Data Access Corporation* (Powerflex, p.436). The respondent, who was the owner of the copyright in the computer program, Dataflex, brought an action for infringement against the appellants.

The appellants created and marketed PFXplus, which was highly compatible with Dataflex. It was held that the source code in which PFXplus was written was different from the source code of Dataflex. Hence, it was held that the appellants had infringed the respondent's copyright only in the Huffman compression table. A similar situation of marketing computer program arose in *Autodesk Inc. and another v. Dyason and others* (Autodesk, 1992, p.330). Autodesk Inc. owned the copyright in a computer program called as "AutoCAD". Autodesk Australia Pty.Ltd was the exclusive licensee of Autodesk Inc. in Australia, which manufactured an "AutoCAD lock" to avoid unauthorised copying of the program. Peter Vincent Kelly designed and marketed an alternative device known as Auto Key lock, similar to AutoCAD lock. On an action for infringement by Autodesk Inc. and Autodesk Australia Pty Ltd, the Federal Court held that Kelly and Dyason were responsible for infringement of copyright. On an appeal to the High Court in *Autodesk Inc. and another v. Dyason*, (Autodesk, 1993, pp.300-305) it was held that the copyright protection extended to the form in which ideas, systems and methods were expressed and not to the ideas, schemes, systems and methods themselves. The High Court further ordered that Kelly and Dyason may be restrained from,

- Reproducing in any material form the whole, or a substantial part, of the computer program known as "AutoCAD";
- Selling or letting for hire, or by way of trade, offering, or exposing for sale or hire, any article, being a reproduction of the whole, or a substantial part, of the said computer program.
- Reproducing 127-bit series look-up table.

Infringement of copyright in computer programs by SMEs was pleaded once again in *Microsoft Corporation v. Auschina Polaris Pty Ltd*. (Microsoft, p. 111). According to Microsoft, Palm Beach infringed its copyright in two of its programs by importing 1500 unlicensed reproductions into Australia and by selling these reproductions. According to section 37 of the *Copyright Act, 1968* (Cth), importation of an article into Australia without a licence from the owner of the copyright, for the purpose of sale or hire or trade amounts to infringement of copyright. Under section 38 of the Act (Copyright, 1968) the copyright in a literary work is said to be infringed by a person, who sells, lets for hire or by way of trade offers or exposes for sale or hire, an article without obtaining a licence from the owner of the copyright. In *Avel Proprietary Limited v. Multicoin Amusements Proprietary Limited and another*, (Avel, p. 88) the rights of a business, which was a distributor and an owner of computer program were scrutinised. Avel Pty. Ltd was the distributor of Williams Electronic Games.

The distributor entered into a sole and exclusive distribution agreement with Williams Electronic Games in 1986. Williams was the owner of the art work and the computer programmes, which ran the games. In 1987 Multicoin Amusements Pty Ltd ordered a consignment of used Williams's games. The distributors threatened legal action for breach of copyrights. Multicoin along with British Amusements brought an action against the distributor and made an allegation that the threats were unjustifiable under section 202 of the *Copyright Act 1968* (Cth) and sought an injunction against the distributor to refrain the distributor from threatened legal proceedings in relation to the infringement of copyright. According to section 202 of the *Copyright Act 1968* (Cth), a person threatened with an action for infringement of copyright may obtain a declaration that the threats are unjustifiable and may also pray for injunction and damages. The defendant in such circumstances may apply for a counterclaim for relief in an action for infringement of copyright by the plaintiff, relating

to the threatened proceedings. Thus Avel, as a distributor brought a counterclaim. The distributor contended that its actions were justifiable to protect its rights as an exclusive licensee of Williams and sought an injunction restraining the importers from infringement of copyright in Williams's games.

It was held by the High Court that, the distribution agreement did not make the distributor, an exclusive licensee of the copyright in the games and the related computer programmes. Williams, as the owner of copyright was entitled to publish, authorise publication in relation to the artwork and the computer programme incorporated in the games. Affirming the decision of the Full Court of the Federal Court, the High Court of Australia held that the distributor not being an exclusive licensee or the legal or equitable owner of the copyright could not bring proceedings for infringement of copyright. Allowing the appeal, the distributors counter claim was dismissed.

USE OF ICT BY SMEs: CHALLENGES AND RESPONSES

The use of ICT has resulted in legal issues, legal perspectives, legal implications and challenges. There have been instances where small and medium businesses have recorded and stored information relating to their customers and eventually sold this to others without their customer's permission (Marshall 1997). While the government encourages the extension of the Information Privacy Principles (IPP) to SMEs (Attorney General's Department 1996), currently the only control on privacy of business clients relates to credit providers and the use of information relating to the credit worthiness of an individual. This control does not meet the ICT challenges (Hughes 1997, p. 25).

It has now been confirmed that SMEs have been actively looking for suitable solutions to the problems and are also looking for methods of adopting and integrating ICT into their business because of enormous advantages (<http://sbdc.gov.au>). SMEs are aware that the use of ICT enables even the smallest supplier to make a global presence and conduct business worldwide.

COPYRIGHT AMENDMENT (DIGITAL AGENDA) ACT 2000

The rights of creators and investors of literary work are protected under the *Copyright Amendment (Digital Agenda) Act 2000*. The Act has repealed and substituted the definition of a computer program. Accordingly, under section 7 sub section 10(1) of the *Copyright Amendment (Digital Agenda) Act 2000*, a computer program means a set of statements or instructions to be used directly or indirectly in a computer to bring about a certain result. Temporary reproductions of work made in the course of communication are dealt under section 43A of the Act. Under section 43A of the Act, the copyright in a work or an adaptation of a work is not infringed if temporary reproduction of the work or an adaptation is made, as part of the technical process of making or receiving communication. Under section 47AB of the Act a computer program includes any literary work, which is incorporated in or associated with a computer program [Copyright, 2000].

ENHANCING AND IMPROVING CAPABILITIES OF SMALL AND MEDIUM BUSINESS ENTERPRISES IN THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY

Most small and medium enterprises miss business opportunities due to lack of resources. Access to Information Communication Technology enhances and improves their business. Due to the use of ICT, websites and the internet, the SMEs will not only be able to advertise their business but also target national and international customers. Constant access to the ICT

will also help the SMEs to gain government business. Use and adoption of ICT will provide the SMEs with sufficient access to Government procurement information and this access will assist in developing market plans and future strategies to improve business and obtain business contracts. SMEs need to be trained and educated in the effective use of ICT to enhance and improve their capabilities. An awareness need to be created about the importance of the use of ICT by the SMEs (Campbell 2002).

SMEs adopt ICT due to a number of factors such as the easy availability of personal computers, cheaper ICT infra structure, useful office automation suites, perceived need to offer web sites, pressures by the supply chains on SMEs to adopt and use ICT, packaged applications to support business practices such as accounting, customer relationship management and business intelligence (WestFocus 2006). However, some organisational factors do inhibit the use and adoption of ICT by SMEs. These may be identified as the cost of technology, lack of managerial and technological skills, lack of system integration and lack of financial resources (Pfeiffer 1992). These inhibitors play an important role in the business context of SMEs, where resources and computer sophistications are limited (Swatman and Swatman, 1991).

SMEs are also influenced by high level of environmental uncertainty due to fluctuations in interest rates, reliability of supply and competition (Fink & Kazakoff 1997). Further, the use of ICT is often imposed on SMEs by major customers or suppliers. Such pressure from trading partners also plays an important role in the use and adoption of ICT by SMEs (Iacovou et al. 1995). Some of the SMEs use ICT due to the competitive pressure they face within the business or an industry (Cragg & King 1993).

In order to enhance and improve capabilities, the SMEs must overcome barriers for adoption and implementation of ICT, such as shortage of skills, lack of managerial time, excessive costs, lack of ICT knowledge, lack of systems integration, lack of reliable technical advice and support, lack of suitable infrastructure, inappropriate economic climate and size of the enterprise (Robertson & Gatignon 1986).

Preventive measures must be introduced and adopted to achieve comprehensive security such as electronic transaction securities, and Software securities. (Bidogli et al., 1989). Major threats in the use of Information Communication Technology by SMEs such as security problems, hacking, and infringement of copyright or inadequate protection of copyright must be addressed adequately, because it is these problems which are resulting in huge setbacks to business and trade and ultimate loss of trust in such trade. Finally, the SMEs must also be made aware of the role of ICT in the business community and prosperity of business not only in Australian market but also in international markets.

CONCLUSION

More and more SMEs are adopting and using ICT and electronic commerce in order to increase business efficiency and compete with the global market. However, for small and medium enterprises there are legal issues, legal perspectives and implications for adopting ICT for business use, particularly with respect to the security, protection and rights of the creators, owners and manufacturers of ICT. The *Copyright Amendment (Digital Agenda) Act 2000* (Cth) has accelerated litigation in Australia with respect to ICT and electronic commerce. According to the Act, it is unjust for parties to benefit from the intellectual wealth of others. For example a SME may end up in litigation by using work available on a web site

or providing a link from one web site to another, without a licence or permission of the owner or author of the web site as seen in *Shetland Times Ltd v Wills and another*.

Copyright can also be breached through the marketing or design of software programs similar to those belonging to another business as in *Autodesk Inc. and another v Dyason* as well as by importing, using or selling unlicensed reproductions of software programs similar to *Microsoft Corporation v Auschina Polaris Proprietary Ltd*. For breaches the courts have not only granted injunctions but also provided damages or called for an account of profits. In some cases the courts have not only granted additional damages but also provided private civil actions for the owner of ICT copyright. Further, some offences attract imprisonment up to 5 years.

The project has examined the legal issues and legal perspectives for SMEs of adopting and using ICT and electronic commerce. Specifically this project also studied the level of awareness small and medium business owners have about their rights and obligation of using ICT, electronic commerce and the implications for breach of laws in relation to their use. The purpose of such an examination was to elaborate a set of strategies to guide small and medium business in their adoption of ICT and thus minimise risk. This project has analysed the rights and obligations for small and medium business with respect to ICT use for business purposes. It is seen that, education, training, security in the use of ICT and awareness of the importance of ICT and electronic commerce enhances and improves capabilities of small and medium business enterprises in the use of information and communication technology in business.

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