Balancing the Competitiveness within the Software Industry under the Background of Intellectual Property Rights: an Outlook on Malaysian Position

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要　旨

マレーシアにおいて、自由競争と公正な貿易は必ずしもソフトウェア企業の発展に資するものではなく、時としてその障害ともなっている。日米ではソフトウェア関連特許が認められているためマレーシア市場のソフトウェア・プロダクトは米国等の企業によって独占されている状況である。マレーシアでは、知的財産権の制限と自由競争及び公正な貿易の確保をどうやってバランスすべきかという問題が未解決のまま残されている。マレーシアが競争政策と知的財産権保護政策の板挟みにある状況をどう克服し緩和させるかは、両者のバランスのあり方にかかっているからである。本論文は、英米法及び EU 法を調査しそこから示唆されるところをマレーシアの著作権法と特許法の法解釈と立法政策に反映させることを試みたものである。例えば、フェアユース、強制許諾、相互運用性（interoperability）についての権利制限規定に関する検討である。

Keywords: Competition Law, Patent Law, Copyright Law, Computer Software, Interoperability

1. Introduction

The laws in Intellectual property rights within the software industry have been at centre stage for the past 4 decades. Copyright law was initially the only manner software was able to be protected but Patent law has extended this protection right even further. The notion of Intellectual property rights within the software industry, be it reside under copyright law or patent law or both; does not come without problems and criticisms. In recent years many have criticise, the protection given under patent law, have nullified the notion of innovation. Software patent is seen as a strong protection which ensured a control of the market by the proprietary holder; this ultimately would limit any further innovation and hinder fair competition within the industry. However, the notion of copyright law in protecting software has become acceptable and less critical; this due to the fact, copyright law protects the expression and not the idea behind workable software.

Nevertheless, the protection under copyright law also contributes anti competition activities, due to the exclusive right provided therein.

The issue of competition have becomes a stumbling block; with the recognition of software patent in most developed countries, monopolization of standard software by multinational companies has become a common practice. Thus a question remains unanswered; as to how should we balance the rights between the propriety holder and the need of having fair market. This paper will look into the aspect of intellectual property right in software, particularly patent and copyright right within the framework of innovation for the purpose a fair market. However emphasis shall be made on the aspect of limitation within these legal rights in particularly the limitation for the purpose of interoperability. It will discuss the position of Malaysia in address this issue with the background of globalization.

Firstly this paper begins with a brief outline of Malaysian current legal protection of computer software and its competition policy; it will further discuss the current position with regard to the conflict of competition and intellectual property. The next part will be looking into and discussing the approach in limitation of the protection of computer software. It will also look to outsiders experience in providing a fair balance between competiveness and intellectual property right. The subsequent part will be discuss briefly what is the current legal approach conducted in Malaysia so has to counter balance the competition side-effect resulted from the intellectual property protection of computer software. It will also form recommendations on Malaysian legal policy.

2. Intellectual Property Rights and Competition Policy in Software Industry

2.1 Current Legal Approach in Malaysia in Protecting Computer Software

2.1.1 Malaysian Copyright Law

The protection of computer software in Malaysia falls predominantly under the Copyright Act 1989. Under the Malaysia Copyright law it provides a clear but distinct definition of what constituted to "copyrightable work" it clearly provide an undoubtedly view that computer software is protected therein. The Act provides 6 categories[1] of work that eligible for copyright they are (a) literary works (b) musical works (c) artistic works (d) films (e) sound recording and (f) broadcasts. The inclusion of computer software under the Malaysian

Copyright Act was done in a recent amendment in 1997[2]; the amending Act has defined literary work to include computer software[3].

This being the case, the 1987 Copyright Act confers copyright owners of computer software the same exclusive rights and subjects this broad protection to the same fair-use exceptions as in the case of any other literary work. This entails the exclusivity of ownership, assignment and licensing right to the proprietary holders. The Act also provides an exclusive right to control the work by the proprietary holders, which includes the right of distribution, communication performance and commercial rental[4]. The Act also provides exclusive moral rights to prohibit other to exploit work without the consent of the owner[5].

The protection of computer software under copyright lies in it literary expression whereby it protects from the copying of the source code that embodies the expression of the computer software. It protects directly the expression of the working of computer software. Infringement of copyright is determined by how much have been copied in comparison to the original work; and to what extent does the principle or the core subject matter of the original work is being copied.

2.1.2 Malaysian Patent Law

The Malaysia Patent Act does not provide a specific legal protection on computer software. The Act does not exclude nor include software as a patentable invention. However, with the interpretation of Section 13 of the Patent Act; which provided a list of items that may not be granted patent[6], the patentability of computer software in Malaysia is seen prima facie non-patentable. Section 13 provides that mathematical methods, doing business or performing purely mental acts are not patentable. Since computer software in principles are works base on mathematical method hence it`s a logical deduction that Malaysia Patent Act do not covers computer software.

Nevertheless, it should be consider that the working of computer software does not merely encompass mathematical method of doing a particular act, it embodies innovative process which are patentable. The uncertainty of the Act provided a very vague possibility of whether or not computer software can be protected under the patent law; however what is lacking in the Act have been address in the Guideline of the Malaysia Patent Office[7].

The Guideline provided the definition of computer software; which is a set of instruction for controlling a sequence of operation of data-processing system. The guideline further explain that a computer program resembles a mathematical method; whereby it may be express in various forms and may be presented in a format suitable for direct entry into particular computer or may required transcription into different format[8]. The Guideline express that an invention base on computer program may be granted a patent if it resulted in a technical implementation. As such under the Malaysia Patent Act although it does not provided explicitly the protection of computer software but it does provides for its under the Malaysia Patent Office`s Guideline[9].

Further, with the adoption of modified system in the examination of patent application by the Malaysia Patent Office, whereby an examination of patent application is depended on the invention which has been granted registration in other countries. Indirectly, software without technical outcome has been granted in Malaysia. Although this modified system is not a sure way of granting a patent but it is a loop hole that most overseas companies used in order to file purely software base patent application in Malaysia.

2.2 Competition Policy in Malaysia

Malaysia do not have a single legislation on competition law, however, some competition policies are imbedded within the specific industry regulatory legislation. Currently the Malaysia competition regulations are sectoral in nature[10]. Sectors related to Water Supply, Airports, Road, Railways, Communication and Multimedia, and Electricity Supply[11]have address issue of competition within its regulation. However, the regulations on those sectors mostly deal directly towards economic imbalance of pricing.

The notion of competition policy should extend beyond merely regulating fair price; anti competition acts conducted by parties should also be regulated. Matters regarding restrictive business practice such as market allocation, quota refusal to supply, collusive tendering and issue of market monopoly are unable to be prohibited or controlled by the existing laws. However, in the sector of Communication and Multimedia, the Communication and Multimedia Act 1998 has dealt with matter regarding anti competition acts. The Act has highlighted significant provisions on rate fixing, market sharing, tying and boycott[12].

Among the most notable provision of the Act is *Section 133*, which provides that “A licensee shall not engage

in any conduct which has the purpose of substantially lessening competition in a communications market". The provision directly dealt the prohibition of any act of extreme monopolization within the communication market. It further explain that guideline in determining the extent of "substantially lessening competition" fall within the Commission`s duties. Factors that can be taken into consideration for the purpose of guideline are further detail in the Act. Among the factors that are taken into account are:(a) the relevant economic market;(b) global trends in the relevant market;(c) the impact of the conduct on the number of competitors in a market and their market shares;(d) the impact of the conduct on barriers to entry into market;(e) the impact of the conduct on the range of services in the market;(f) the impact of the conduct on the cost and profit structures in the market; and(g) any other matters which the Commission is satisfied are relevant[13].

The Act also addresses the prohibition of entering into collusive agreement. It highlights matters which are not permitted to include under agreement regardless whether it is enforceable or not. It details matter relating to (a) rate fixing; (b) market sharing; (c) boycott of a supplier of apparatus; or (d) boycott to fan other competitor[14]. Prohibition on acts relating to tying is also prohibited under the Act. The Act provides that "a licensee shall not, at any time or in any circumstances, make it a condition for the provision or supply of a product or service in a communications market that the person acquiring such product or service in the communications market is also required to acquire or not to acquire any other product or service from himself or from another person."[15] The Act further expressed the prohibition of anti competition acts by provides provision to monitoring the creation of dominant position communication market[16].

In general the Communication and Multimedia Act provides substantial provision in facilitating a market environment that will not distorted the public rights toward a freer market; albeit its` only concentrated within the communication market. Regardless its sectoral nature, the Act shows that the important of having a regulated policy on anti competition acts. Malaysia competition policy is still within its infancy stage, single competition legislation is needed to benefit a wider range of industries in creating a free market environment. It should be noted that a single legislation of competition legislation in Malaysia have slowly gain its momentum.

Malaysian government have approach cautiously in legislating a competition legislation for over a decade[17], the Ministry of Domestic Trade, Cooperative and Consumerism have announce that a draft bill is in place and would be up for its first reading in Parliament in March 2010 and is expected to be enforce by the end of year

2011[18]. The drafted bill is laminated with 3 essential elements[19] which are (a) anti competitive agreements, (b) abuse of dominant position and (c) mergers having the effect of substantially lessening competition. The three pillars address (to a certain extent) in the drafted bill is essentially what most competition legislations from other countries have been addressing. The drafted Bill provides provision that covers the subject matter rather than the manner of implementation, it provides the power to the Competition Commission to drafting guidelines in monitoring the anti competition acts[20]. This approach is very similar to how the Communication and Multimedia Act is being enforced, regarding its competition policy.

Nevertheless, the current drafted Bill did not address any issue pertaining to the conflict that might arise with intellectual property. There is no provision that express the relationship between competition right and intellectual property right. It should note that the idea behind any competition policy is to manage a freer market in an industry. This is achieving by limiting any monopolies acts by one party. However Intellectual Property law provides the opposite, it gives the intellectual right holders the legal right to control their work and thus would resulted to an act of monopoly. Both laws in essence are contradicting with each other, and it is unfortunate that the drafted competition bill did not take the opportunity to clearly identify the link and relationship between the two rights. The conflict would be further muddled in the area of software industry, this is because the industry in currently facing extreme criticism with many multinational companies excising their proprietary rights in particularly within patent law to control the market in software industry[21].

2.3 The Link between Intellectual Property Right and Competition Law in Software Industry

2.3.1 General Link

It is worth to note, most competition legislation provides exemption[22] to intellectual property right in their scope of application. This is base on the two tier theory, the first tier is to assumes the legislator have properly defines the limits so much so it will fulfill its function of stimulating rather than stymieing innovation and progress; and the second tier relates to restriction of the proprietary holders to impose on third parties without being inherent or ancillary to the right as such[23]. Although most intellectual property right would be consider lawful under its accepted limits but in certain circumstances the intellectual property monopoly becomes unlawful in a market monopoly[24].

Nevertheless, it is inaccurate to assume that intellectual property right promotes market monopoly. Intellectual property right grants exclusive right however, this right is not monopoly in the economic sense[25]. Intellectual property rights may create a dominant market but this is not because of the intellectual property nature but resulted from the market situation such as net work effect or lock- in effect[26].

The link between Intellectual property right and competition policy is base on the idea that economic exclusivity is rewarded towards innovation that is worth being protected and thus promoted technology. But it also would encourage anti competition acts. The dichotomy of these two principles applies to undermine each other; whereby the core principle of competition policy is to regulate anti competition acts that sometime arise from the exclusivity rights granted by intellectual property law. Regardless the fact that both competition law and intellectual property law are able to co-exist, the exploitation of intellectual property by proprietary holders are sometime would be prohibited (otherwise are lawful) by competition policy.

Most anti competition acts arises from duties toward one's competitor, there is no such duty under intellectual property law. However, competition policy impose such duty, it established boundaries on those monopolies by imposing liability when the proprietary right holders restricts dealings with competitors[27]. Nevertheless, in a different perspective, it can be seen that both principle have a common aim. Both competition policies and intellectual property rights aim to create incentive to introduce new product[28]. Both rights complement each other in promoting technical progress which will ultimately benefit the consumer. The "theory of complementarity" is base on the idea that competition policies encourage innovation when facing stronger competition; and innovation is more likely to exist if it protected against free-riding[29].

2.3.2 Software Protection and Competition

The need to limits the protection of computer software for the purpose of fair competition is essential within the current technology background. Selected software have become a standardize product in the market. A simple example can be illustrate with the personal computer market; with Microsoft Corporation and Apple Company are the two main companies that provide software application to be used with personal computers. Other software application by other companies face a difficult task in competing because the two companies have created a standardize product within the market.

It is worth to note, the inserted balance between the intellectual property right and competition right is not meant to penalize the proprietary holders. The right conferred under the intellectual property should not be undermine; however, control of abuse of such right is needed to deal with, in order to create a fair market and therefore would benefit the consumer. Competition policy would deal matter related to (to name a few); tying of product, refusal to license and abusing dominant position.

Within the software industry, the act of anti competition are mostly fall under the issue of tying, refusal of licensing and abuse of dominant position. In *US v. Microsoft*[30], the fact was that "Microsoft monopolized the operating system market by discouraging Netscape from circumventing Windows direct control over hardware (monitor, keyboard, mouse, printer, communications, disk drives) at the level of "application programming interfaces" (API - computer information flow at deep levels in the operating system directing various functions of input, output, processing, display, storage, etc.). Microsoft withheld key interoperability specifications or delayed granting licenses to pressure concessions from Netscape, Intel, IBM, Apple and RealNetworks. Microsoft spent heavily to develop a rival browser, Internet Explorer, then it actively sought market share by distributing Explorer for free[31]". It was held that Microsoft was in violation of Antitrust law by maintains its monopoly powers by anti competition means.

The *Microsoft Case*, illustrate a classic example how proprietary right holders are able to abuse their right in the circumstances where a software product becomes a standard in the market. The core problem in this case was the fact that Microsoft was able to suspend technology advancement on middleware software by prohibits the interoperability within its operating system software. Middleware like the Nestcape Web Browser and Sun Microsystems, are examples of application software that relies substantially on other operating system[32].

The balancing act between competition policy and intellectual property right is not only to create a fair market but also to encourage innovation in order to create better competition. The idea behind the protection of computer software (within patent and copyright law) is to prohibit imitation or copying and not progress or innovation of other independent computer software. This would be true if we are living in an ideal society, where proprietary right holder do not abuse their rights but the fact remain, in the software industry where a product becomes the standard within the market, a strong intellectual property protection provide therein

encourage abusive act of anti competition and will discourage innovation of other products if information is not able of being shares with others; as illustrated in the *Microsoft case* above.

However, before going any further with the legality and the idealism of balancing the competiveness in the software industry; we should consider what make software industry different from other industry that are being benefit from the protection of legal right under the intellectual property law. For a point to consider, software industry is base on technology that drives from compatibility with other software. Software is usually creates on top of existing software and application programming interface (API).

It is also well establish that the current software industry maintain a dominance market, it can be seen that the software market is a classic example of network market; that one product or standard tend towards dominance within the commercial market. Microsoft Window application would best illustrate this position; it can be assume that within the software commercial market most personal computer utilize Microsoft Window application as a standard operating system hence it have created a standardize within the personal computer user.

Therefore, new software application need to interoperate with the Microsoft's operating system in order to gain a slice of the market. Without the compatibility, new applications have the difficulty to penetrate the market. Hence, to benefit from the dominance market of Microsoft Window and penetrate the market, development of new software application need to be able to be compatible with the current market leader.

This chain reaction creates a "network effect" whereby one user of a product becomes more valuable as more people use it. The network effect creates a standard to one particular technology; therefore, as a result one particular computer software becomes dominant in the market[33]. Hence, it created a de-facto standard that "arises from the operation of market product and reject it competitor" [34]. A great concern is that by creating a dominant standard, one software firm may "lock in" the whole market, making it impossible for other programs to interoperate and so impossible to compete. Of course the competitor may attempt to migrate to a completely different standard, and create a new network effect but this would significant destabilize the standardization process[35] and thus weaken the technology progress.

As such in order to maintain and gain a fair competition within the software industry, compatibility of file formats, network protocols and interfaces between competing software products are required to be able to interoperate with each other[36]. This notion of interoperability has become a brick wall in allowing other to work with current protected software in producing compatible software.

Software is basically base on coding using a type of language in writing to create working software to perform task. Allowing to uses the protected coding of existing software for interoperability means software program are able to communicate with each other to perform different task. The idea of interoperability is not to permits others to infringe any rights to create a duplicate software; But it is to promote others to create independent software that able to work together. Although, the idea of allowing usage of any protected coding for the purpose of interoperability is not necessary a problem; If companies having the legal right would just allow other to use their codes to create other independent software, which in the long run will benefit the general public as well creating a supplementary market for their product .

Here is where the link of competition policy and intellectual property right of computer software comes into the picture, proprietary right holders (having the right of a market standard product) control the market, and they usually choose and pick and sometimes enforce unreasonable terms for the utilization of the code for purpose of interoperability. Albeit such action is within their right confer by having the intellectual property law but should the rights be maximize utilize to the extent that it would give an adversely affect to the right of the general public within the market of software[37].

3. Competition Policy and Limits of Intellectual Property Rights of Computer Software

3.1 General

The concept of any competition law is to limits any dealings being able to contribute a monopoly market. The notion of balancing the rights usually fall within limiting or monitoring anti competition acts. Within the software industry, the common anti competition acts boils down into licensing and abuse of dominant power. It is worth to note that intellectual property right plays a direct role in maintaining the fair balance for a fair market environment.

At present the protection of computer software fall under the copyright law and patent law, both law have to a certain extent provides some general limitation to the rights confers therein. As highlighted earlier, the nature of computer software is base on compatibility of other standardize software product. The protections confer within both laws would limit any act of interoperability without the consent of the proprietary holders. This in turn can create a dominant market to a particular company in maintain not only the market of a standardize software but also the secondary market for interoperable software.

In looking at the whole picture, a licensing procedure of software can discourage the innovation of the software industry[38], the main reason for this assumption is that possibility of the refusal of the right holders to provide such licensing for the purpose of interoperability. Competition policy would able to remedy such situation, whereby in situation where a company refuse to license or give information for interoperability; it deems as an act of anti competition. Herein, the refusal can be seen as an abuse of its dominant power[39].

A significant case to illustrate the above can be found with the decision of the European Court Justice (ECJ) in *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG*[40]; the ECJ held that the refusal by a dominant company to grant license even to potential competitor, could breach competition law in particular *Article 82*[41] where (a)the undertaking requesting the license intends to offer new product or services, not offered by the owner of the intellectual property, and for which there is a potential customer; (b)the owner of the rights is unable to justify the refusal by objective consideration and (c) the refusal reserve to the intellectual property owner the relevant market, by enabling it to eliminate all competition on that market[42]. Although in this case the market in question was not software market but the essence of the judgment would able for parties to seek remedy in the event company refuses to supply information for the purpose of interoperability in creating a secondary market for software product.

However, in the situation where refusal of information for interoperability is not the main issues, then competition policy will have limited effect. Even if license is granted for the purpose of interoperability, the licensing fees being paid in lieu of the license can also create a barrier to use and would effectively reduce the number of available product[43]. Furthermore, interoperability licensing fees ultimately could also limit especially for those who cannot meet the licensing criteria such as open source developer and academics' for which these groups is often restricted to using only royalty free patents[44].

Competition policy can only so far control acts that constitute to a monopoly, what most policy provide are general provision that is able to affect a wide range of industry. Action by the proprietary holders sometime do not constitute to anti competition acts, some act are such as royalty base interoperability license can be seen as within the legitimacy for the right granted but in so far it does adversely affect the general public as well as the competitor. It is unreasonable to include specific limitation of software usage under the competition policy. There should be other means that are able to effectively monitor act that limits interoperability of software. Limitation for the purpose of interoperability is needed to be address specifically.

3.2 Limitation for Interoperability Purpose

Competition law is not the only means to counter balance the competiveness in the software industry. Specific limitation within the intellectual property law would also able to help in creating a fair market. Having wider protection of computer software (both under copyright and patent law); intellectual property protection of computer software is seen to reach a stage where it is over protected. There is the need for intellectual property law to play a role in balancing a fair market environment. Countries like the UK, US, Australia and the European Community (EC) haven take the opportunity to address this limitation. These countries see the need to utilized intellectual property law in limiting the right conferred particularly for the purpose of interoperability of software.

There is a strong need for software to interoperable and to ensure compatibility between file formats, network protocol and interface, as well as the need for a common language and standard[45]. The software industry has reached to a stage where it becomes more complex and interdependent with other programs. Where a technology that becomes a de facto standard is controlled by a single proprietary holder, the right holder has significant power and control over every company and individual that seeks to create computer software that is compatible[46].

The need for interoperability goes parallel with the characteristic of computer software. The main characteristic of computer software is its ability to function through the communication with other software. The multi-layered structure of computer software, in which the function of computer software at upper level are performed based on those at lower levels[47]. Thus, to create a competitive environment within the software industry it requires the ability for upper level software to use function and rules of lower level software[48].

Therefore, to restrict the communication between two computer software by any means (albeit it is permitted by law under the exclusive right of intellectual property law) would undercut the full capacity of functional computer software.

The European Court of First Instance (CFI) have the opportunity to address this issue under the case of *Microsoft*[49]; in this case Microsoft refuse to supply interoperability information and it argue that the refusal cannot constitute to an abuse of dominant position within the meaning of *Article 82* of the European Community[50] because, first the information is protected by intellectual property right and second the criteria establish in the case law which determine when an undertaking in a dominant position can required to grand a license to a 3rd party are not satisfied in this case[51]. The CFI held that "there is no need to decide whether Microsoft's conduct constituted a refusal to license intellectual property rights to a third party … since the strict criteria against which such a refusal may be found to constitute an abuse of a dominant position within the meaning of *Article 82* of the EC[52]".

In the European *Microsoft's case*, the CFI clearly identified that the restriction of supplying interoperability information under it license provision is amounted to a conduct of anti-competition. What this case establish that, interoperability is a legitimate method within the development of computer software. Whether or not the interoperability information is protected under intellectual property was not important, what important is the restriction is prohibited. Thus is could be seen that interoperability could be consider a valid limitation within the software patent and copyright.

A report issued by US Federal Trade Commission have highlighted a very interesting observation pertaining to the characteristic of a software industry within software patent, under the report[53], it highlighted five characteristic of software industry; a) innovation occurs on a cumulative basis; b) required low capital; c) rapid rate of technological change; d) alternative means beside patents for fostering innovation and e) the infancy of patent protection in software industry[54]. These characteristic to an extent does not justified the monopoly rights that it receive from the protection of patent. This is because, unlike other industries, the computer industry maintains a flexible attribution having a high technology turnover with minimum investment. Therefore, it is reasonable to balance the right given with legal limitation such as interoperability, to maintain a competitive market within the software industry in order to benefit the general public.

3.3 Specific Software Regulation

Limitation for interoperability under the intellectual property law should be discussed separately within the patent and copyright laws. Since both laws provide different aspect in the protection of computer software. The expression is protected under copyright law whereas the idea behind the working is protected under patent law. The limitation for the purpose of interoperability is not new under copyright law. Country, such as UK, and the EC have established some kind of limitation for the purpose of interoperability under their copyright legislation

However under the patent law the limitation provision similar to the copyright legislation is yet to be embrace by the legislators. Although, the US have address this issue under the pretext of anti competition acts, which fall under *Section 2* of the ***Sherman Act***[55]. The US Supreme Court have accord the notion that an act of anti competition able to derive from legal advantages such as a patent or copyright if the proprietary holders exerts their dominance in one market in order to expand their empire into the next[56]. This notion correspond with the fact that refusal of giving information for purpose of interoperability of a secondary market would amount to an abuse of dominant power.

The approaches by these jurisdictions relating to limitation of the intellectual property right for the purpose of interoperability will be elaborate further in the next part. It is worth to note; limitation for the purpose of interoperability does not undermine the proprietary right being confer there under. The bases of interoperability limits are not to encourage of legalized copying or imitation but to able others to innovate and compete within the market rather than allowing selective or the right holders themselves solely benefit from the market share. Further the concept of interoperability goes parallel with the act of reverse engineering and decompilation in retrieving information for the purpose of interoperability.

3.3.1 Copyright Law and Limitation

The limitation for interoperability has been address in many jurisdictions; UK Copyright Act provides significant provisions on this issue. Under the Act it highlighted that it is not an infringement of copyright if a lawful user convert a program expressed in a low level into version express in a higher lever language under the condition that it is necessary to decompile the program to obtain the information necessary to create an independent program which can be operated with the program decompiled and the information obtained is not

used for any other purpose[57]. The Act further express, it is irrelevant whether or not there exists any term in an agreement to prohibit the act[58] but the fact remain that the obtainable of the program must be from a lawful means[59]. The UK copyright law has clearly provided a limitation to the right confer to the proprietary holders. Although, the word "interoperability" was not use therein but the essences of the *Section 50B* is to allow usage of information retrieve by act of decompilation for compatibility purposes.

However, the UK Act also provides sufficient safeguards against bad faith or unfair use of the limitation by the competitor. Under the subsequent provision it stress the lawful act of decompilatiom is not permitted in circumstances that the user (a) has readily available to him the information necessary to achieve the permitted objective; (b) does not confine the decompiling to such acts as are necessary to achieve the permitted objective; (c) supplies the information obtained by the decompiling to any person to whom it is not necessary to supply it in order to achieve the permitted objective; or (d) uses the information to create a program which is substantially similar in its expression to the program decompiled or to do any act restricted by copyright[60]. The condition provisions provided therein reinforce the proprietary holder's rights from direct copying but maintain the advancement of innovation within the software industry. The limitation should make it easier for new software producers to break into the existing market by enhancing existing successful product by interfacing with them[61].

The EC also has addressed the issue of decomplition for the purpose of interoperability as a legitimate limitation of copyrights. *Article 6* under the subtitle "Decompilation" of the Council Directive provides that "the authorization of right holder shall not be required where reproduction of the code and translation of its form ... are indispensable to obtain the information necessary to achieve the interoperability of an independent created computer program with other program...[62]"

Article 6 of the EC directive did not only provide limitation under the copyright it also establish the fact that interoperability information (to an extent) do not covered by copyright law[63]. Under the EC directive the protection of computer software under copyright can be extent to specification documents; but it can`t prohibit in any way independent implementation of the specifications[64]. Similar to the UK legislation; the EC Directive also provide condition for the limitation; it provides two instances whereby the limitation is not covered. The usage of the information other than to achieved interoperability in creating independent

computer program is not allowed, as well to give other the retrieve information[65]. It also prohibit in using the information for development, production or marketing of computer program substantially similar in its expression and other act which infringe copyright[66].

Both the EC and the UK laws provide clear provisions addressing the limitation of copyright for the purpose interoperability. Both laws also provide condition that to not undermine the proprietary holder's rights. This provision can be seen a pro-competition, as in creating a wide market and encouraging innovation, and thus encourage fair competition.

In the US, the limitation for the purpose of interoperability came in different form. Initially the doctrine of fair use under the US Copyright Act[67] have been utilized to allow act of reverse engineering of software to gain access to functional component of code in a particular software. In *Sega Enterprises Ltd. v. Accolade Inc.*[68], the court invoked the "fair use" doctrine to allow decompiling of software binary code in circumstances where there was no other way to decipher the chip interfaces to produce game software products for a specific system. The court concluded that when the person seeking the understanding has legitimate reason for doing so and when no other means of access to the unprotected elements exists, such disassembly is as a matter of law a fair use of the copyrighted work.

The Court further expressed the view that where there is good reason for studying or examining the unprotected aspects of a copyrighted computer program, disassembly for purposes of such study or examination constitutes a fair use that is privileged by *Section 107* of the US Copyright Act. The court recognized a fair use exception to decompile software in order to achieved interoperability[69].

However, the problem of copyright protection pertaining to interoperability in the US during that time was not that the functional aspects of the computer code would be protected under copyright, but rather that the reverse engineering of the software to gain access to these unprotected functional components of the code would infringe on the expressive elements that were protected under copyright[70]. This have been answer in *Sega's Case* by the establish include decompling and reverse engineering fall under the fair use doctrine for discovering functional requirement for compatibility[71].

Subsequently the limitations for the purpose of interoperability within the copyright protection have been codified under the Digital Millennium Copyright Act[72]. Under the subtitle "Reverse Engineering" the Act provides that; "... a person who has lawfully obtained the right to use a copy of a computer program may circumvent a technological measure that effectively controls access to a particular portion of that program for the sole purpose of identifying and analyzing those elements of the program that are necessary to achieve interoperability of an independently created computer program with other programs, and that have not previously been readily available to the person engaging in the circumvention, to the extent any such acts of identification and analysis do not constitute infringement...[73]"

The provisions provided in the US copyrights law have establish a wider and complete approach of interoperability limitation by allowing act of decompilition and reverse engineering in creating an independent program. The Act even defined the word "interoperability" as to mean "the ability of computer programs to exchange information and of such programs mutually to use the information which has been exchanged[74]". The provision to a greater extent provide an embedded policy (other than competition law) in encourage innovation to strike a balance between competition right and intellectual property right.

3.3.2 Patent Law and Limitation

The protection of computer software under patent law is drive from the insufficient coverage under the copyright law. The first significant case law on this matter was addressed by the US Supreme Court in *Diamond v. Diehr*[75] the Supreme Court held that an invention could not be denied a patent solely because its claims contained mathematical formulae. Instead, the court required a look at the invention as a whole. The decision in *Diamond's case* was further expanded and affirmed in *Re Alappat*[76]; the Supreme Court prescribed that that algorithm is patentable because they limit a general-purpose computer to a specific purpose, performing functions pursuant to the software.

The protection of software under the Patent law have created a huge implication within the US software industry; many criticize that obtaining patent software is easy thus would restrict many other to innovate. As highlighted earlier (in the second part of this paper), the nature of software industry is a product that are able to communicate, work and being compatible to each other. The fact that there is the need for interoperability for compatible software to work together has created a lock in market by multinational company that holds

majority of the patent software. Thus, the current patent system substantially constrains software improvements and innovation; neither the US Patent and Trademark Office nor Congress has yet to propose a solution to address software interoperability needs within the patent law, a concern that the international community has attempted to address while following the US in the acceptance of software patentability[77].

Competition policy under the US Antitrust legislation has been utilized to tackle some problem that software patent brought forth. Matter related to tying agreement, abuse of dominant position and refusal of licensing has been address by the court. Indirectly the antitrust provisions have address the issue of interoperability, in the *Microsoft Case*[78] where the refusal of to give information for interoperability purpose was deem to be an anti competition. The Antitrust legislation have been use in order to strike a balance between right confer under the patent law and right of the consumers. However, nothing under the current Patent Act provides limitation of right for the purpose of interoperability thus threatening the inherent balance between software protection and the recognized public interest in software interoperability that the US courts had already struck in the copyright context[79].

Under the EC it is well establish that interoperability is a valid limitation under the copyright law. However, patent law does not know such limitation. There was an attempt under the EC to include such limitation in its intellectual property directive. In the attempt to codified patent for computer related invention, the propose directive[80] have include a significant provision under Article 6a which address the limitation of patent right for the purpose of interoperability.

In the propose directive, *Article 6a* provides that "Member States shall ensure that, wherever the use of a patented technique is needed for a significant purpose such as ensuring conversion of the conventions used in two different computer systems or network so as to allow communication and exchange of date content between them, such use is not considered to be a patent infringement[81]"

The propose article provide a very wide exception within software patent right, although the idea behind is noble but the wording of the article provide a blanket rule that patent right cannot be use to prevent interoperability between two computer system. The main criticism for this propose article is that it would threaten existing patens in the digital television sector, where data conversion is common and thus resulted in

numerous patent in IT sector being unenforceable[82]. It was the opinion of many that, the limitation proposed, should be worded similar to *Article 6* of the EC Copyright Directive[83], whereby conditions of the limitation for purpose of interoperability is clearly provided. Unfortunately the propose directive for the protection of computer implemented invention was rejected by the community in 2005.

As such the issue on the validity of interoperability within patent law in Europe remains vague. Therefore the remaining concern about market dominant within the software industry using patent right to restrict access to their system is best left to competition law[84]. It is worth to note that, many jurisdiction appear to suggest that when issue of regard interoperability under patent right appears it should fall and dealt with the relevant competition policy; Although it is best to have an embedded limitation within the right, similar to the copyright law in order to have a stronger protection against act of abuse of the proprietary holders.

4. Protection and Limitation in balancing Competiveness: Malaysian situation

4.1 General

In balancing the competiveness of software industry; Malaysia is in a dire position. Having no competition policy that regulate the software industry have expose Malaysia of anti competition activities by company that monopoly the market with their standardize product. Malaysia has less ability to fight activities such as tying agreement, refusal to license and abuse act of dominant market holders. Without having any regulation in monitoring act of anti competition, we need to fall back on the provisions of intellectual property legislation for a solution in maintaining a fair market.

It is well knowledge that in Malaysia computer software is primarily protected under the Copyright Act, however under the Patent Act there is no explicit provision that extend such right to computer software. Although it is a practice of Malaysia Patent Office to grant patent for software that have a technical effect. The Malaysian intellectual property legislations (Patent and Copyright Act) have not expressed any significant provision to remedy anti competition activities. The Malaysia Patent Act, does provides limitation of right, whereby it provides the limit of patent rights to acts done only for scientific research[85]. The Act also provides a provision regulating invalid clauses of licensing agreement, so far as to control any condition impose that is not derived from rights confer by the Act[86].

The Malaysian Copyright Act also provides some limitation to the right holders. The most significant is the fair dealing principle[87]. The principle express the notion of usage that could be consider fair by third party but limits to acts that deal with education and nonprofits purpose. The provision therein also provides other limitations; however, it is confined to act that do not result to any monetary benefit[88]. These limitations express in both laws, concentrate on limiting the rights conferred by the Acts. Nothing therein, addresses any aspect of limiting the right for the benefit of innovation for the purpose of fair competition[89].

In Malaysia the link between competition policy and intellectual property right have not been thoroughly explored. There is no particular concern to current practices of the intellectual property right-holders. This is because the respect for intellectual property rights is still waning and the public still needs to be educated about the values of respecting intellectual property rights[90]. The sectoral nature of Malaysian competition policy limits any connection between the two rights. Except those industries that is regulated by some sort of competition regulatory. As highlighted before the Communication and Multimedia sector have significant provisions of competition policy under the Communication and Multimedia Act. Even then nothing therein expresses any relation with intellectual property rights. The preceding Act only deals with issue of distributive and issuing licenses.

The link between intellectual property and competition policy in Malaysia, on the surface is very limited; in the context of protection of software, it is more evidently does not exist at all. The legal protection of software in Malaysia as highlighted earlier falls prominently under the copyright law, with a limited protection under the patent law for software having technical application. The issue of market monopolization of software industry would be difficult to analysis without any existing law in Malaysia to address it existence. It is crucial to note, monopolization of software within its market does exist in Malaysia; however, mechanism to limit such anti competition act does not exist in Malaysia.

4.2 What`s next for Malaysia?

The protections of computer software under the intellectual property right encourage innovation in return for economic exclusivity. It is understandable that incentive is needed in return of the work done in creating a novel invention. However, within the software industry, in the long run the consumer will be at a disadvantage since innovation for better software is being shot down by companies control the market. As

pointed earlier the characteristics of a software industry are having required a low capital, having rapid rate technologies changes and innovation occurs on a cumulative basis[91].

The lack competiveness and strong intellectual property rights protection in the industry create a barrier for others to develop new ideas in anticipating of infringement suit by right holders. Company that own the intellectual property rights not only control who is allowed in creating compatible software but also who will be able to receive the information to work with the protected software. Malaysia at this period of time does not have a competition policy that is able to regulate the excessive monopolization of software. Therefore, it is reasonable to balance the right given with legal limitation such interoperability in order to maintain a competitive market of computer software to benefit the general public. Unfortunately, Malaysian intellectual property legislations have not address this issue at all.

Interoperability between software is an important aspect within software industry, it is essential to develop new and better program to promote competition. Therefore interoperability plays a crucial role as a limitation within the intellectual property law. In the UK, specific provision is provided within copyright law to allow decompilation of software for the purpose of interoperability. Act of decompilation does not amount to an infringement under the UK copyright law[92]. In the US and European Union it is accepted that copyright allows decompilation and reverse engineering for the purpose in obtaining information required to create interoperable software[93].

In the situation whereby the software is protected by patent law, the issue of interoperability will be address in a different manner. The US and the European have accreted and stress that act of refusal in provided information that required for interoperability would amount to an act of anti competition[94] and thus violate the provision of Competition law. In applying competition policy the fact that the information being refused to supply is protected under copyright law or patent law is irrelevant. The only important fact is the competition act have been duly exercise by the parties.

Malaysia will soon establish a centralize competition legislation[95]; this is a step in a right direction to remedy the long standing issue pertaining to monopoly market within the software industry. Acts of anti competition such as tying agreement, abuse of dominant power e.g. refusal of licensing and business dealing having effect

lesser competition will final be moderate and regulate. However, as any other competition policy, Malaysian competition law will only provides remedy to generalization of antitrust activities.

The real issue of competitiveness within the software industry which mainly focuses on the obstruction in advancement of the technology will most like not to be address with. The importance of allowing reverse engineering, decompilation for the purpose of interoperability is still absent within the Malaysian intellectual property legislation and thus will contribute to an imbalance of right for the benefit of consumer in creating a fair software market.

4.3 Recommendation

The problem that Malaysia face in balancing competiveness of software industry within intellectual property right is that it does not have e a specific legislation is address this matter. The current copyright law merely provides limited provision in addressing the issue. The Patent Act is at a worst position because it even does not provides a clearly outline on whether or not it protect software, silence in many issue. Malaysia also does not have the fortunate to have cases that deal on this issue unlike other jurisdiction.

In addressing the issue on balancing competiveness within the software industry in Malaysia, the best recommendation is to establish a centralize competition policy. Competition law seems to be the natural process thing in controlling the notion of fair market economic within the software industry. As highlighted earlier, Malaysia has taken the giant step in put forth a Competition Act Bill. It would be a great victory for fair market supporter if the future competition legislation provides a similar protection that existed in other jurisdiction. The EC competition directive under *Article 82* has shown a strong commitment in fighting anti competition activities. *Article 82* provides an ideal provision in capturing the importance of regulating a fair market. This article highlight that "any act of dominant position is prohibited"; it further detail the acts that is prohibited in four categories[96]. It is desirable that Malaysian Competition have would achieve a similar approach as to the provision provided by the European Directive.

Under the software industry, it is a known fact that anti competition act will most probably carry out by multinational companies. This is because the nature of software industry in base on standard market product which a mostly owned by these companies. Therefore it is desirable that the Malaysia Competition Act

provides sufficient power to the commission to conduct hearing on any complain of anti competition activities without having consider the implication of economic. It is also desirable that the relationship between competition and intellectual property is being expressed and clarified therein. The usual debate in this regards is about whether the refusal of an intellectual property owner to grant a license to a particular entity or grant exclusive license should be consider as anti competition action[97]. It would be an ideal situation if the Act if this issue is being clarifies therein

Further, other than the competition policy, it would benefit the general public in Malaysia if certain limitations are introduce to control the abuse of intellectual property right by proprietary holder within the software industry. The importance of having limits is because, it promotes a fair market for consumers to have fair choices; and to have variety from the market resulted from innovation. But, the exclusivity rights granted under the copyright law and patent law have created a wall in promoting innovation. Although, it is knowledge that competition legislation plays a major advocacy for a fair market. But, limitation should be address directly to the legislation that granted the exclusivity right in the first place.

The current law provided a very brief and incompetent provision in balancing the exclusivity right and competition right. Malaysia Copyright Act provides permits the making of a back-up copy of a computer program by or on behalf of the owner of the original copy of the program but only as a precautionary measure in the event that the original copy is "lost, destroyed or rendered unusable"[98]. Further the act also provides a permitted act to engage in the commercial rental of computer programs where the program is not the essential object of the rental[99]. It also provides the limitation of fair dealing under *Section 13(2)(a)*[100]. However unlike the fair use doctrine in the US, Malaysia court have yet to have the opportunity to elaborate this doctrine if it would cover an act of decompiltion or reverse engineering of software for the purpose of interoperability[101].

Seeing that Malaysian legal system drive from the English legal system, it is a normal progression that some of the UK copyright provision should be taken into consideration to be implemented within the Malaysia Copyright Act. The most significant provision that Malaysia can follow is the recent amended *Section 50B (1)* of the UK Copyright, Design and Patent Act 1988 provides that it is not an infringement of copyright for a lawful user of a copy of a computer program expressed in a low level language (i) to convert it into a version expressed in a higher level language, or (ii) incidentally in the course of so converting the program, to copy

it[102]. Under the UK copyright legislation, the act of decompilation is permitted when if it is necessary to obtain information necessary for one to achieve the interoperability of any independently created program with the decompiled program or other program[103]. The provision provide under the UK law can be a standard that the Malaysia legislator can follow; by having a limitation for the purpose of interoperability it will encourage innovation within the local software industry. The limitation would maintain a fair marker within the industry and therefore will strike a balance in maintaining both the proprietary right holders and the consumer's right.

To strike a balance within the copyright law, it would be justifiable to include some sort of limitation for the purpose of interoperability. Similarly with the UK copyright law, the EC Directive under Article 6 also posts an excellent model for Malaysia to emulate. The existing limitation of fair dealing doctrine provided under the Malaysia Copyright Act[104], would also be an excellent starting point of reforming the law to include limitation for the purpose of interoperability. This position was best illustrated by the US Supreme court in *Sega Case*[105]. It is wise for any reform done towards the Malaysia Copyright Act should start with the existing limitation; the acts that able to utilize the fair dealing doctrine should be extended to include act for the purpose of interoperability.

It is also desirable for the introduction of limitation for the purpose of interoperability be extended in the Patent Act as well. However, it is wise for Malaysia to first clearly establish its stand in software patent. The vagueness of the current Malaysia Patent Act does not give any benefit at all in striking a right balance between the proprietary right and the consumer's rights. In the circumstance whereby, Malaysia acknowledge software patent, it is wise for Malaysia to take a step further and provides limitation of interoperability under the Patent Act. A good foundation for this limitation can be found in the propose bill of EC directive for computer related invention[106].

5. Conclusion

The idea behind protection of intellectual property law is to provide incentive for encouraging innovative by legitimate monopoly. Similarly the basic premise of competition law, on the other hand, is to promote fair trade, healthy competition and ultimately consumer welfare in the market. Therefore, these two rights are conflicted

with one other in the event that abuse of the rights conferred under intellectual caused strain with competition law. In other jurisdiction, especial in developed countries legislations have been put in place to balance the intellectual property right holders' interest with the need to maintain competition. Having centralized competition legislation help to maintain balance in the software industry where instances of overzealous multinational software companies practice anti competition activities such as product tying, imbalance of licensing power are norm.

Nevertheless, there still a need of specific limitation of the right within the intellectual property law. The limitation of interoperability plays a main role in creating a fair and wider market in the software industry. The control by the competition law and limitation provide under the intellectual property is not to undermine the right confer to the intellectual property holder. But it is to encourage innovation by allowing other to utilize the current technology into creating newer technology; and maintain a fair market by control any act of anti competition, as to be able to give benefit the general public.

Endnotes

1 Malaysia Copyright Act 1987 Part II Section 7 (1) (a) – (f)
2 Malaysia Copyright (Amendment) Act 1997 (Act A994) which came in force on 1st April 1999
3 Malaysia Copyright Act 1987 Part I Section 3 under the definition of "literary work"; sub section (h) The Malaysia Copyright Act defined computer software as an expression, in any language; code or notion, of a set of instruction (whether with or without related information) intended to cause a devise having an information processing capability to perform a particular function either directly or after either or both of the following: a) conversion to another language, code or notion; b) reproduction in a different material form.
4 Ibid at Part III Section 13(1)(a)(a)-(f)
5 Malaysia Copyright Act 1987, Part III, Section 25
6 Malaysia patent Act Section 13 (1) (a)
7 Guidelines for Patent Examination in the Intellectual Property Corporation of Malaysia; available at http://www.mipc.gov.my
8 The Guideline further express a clear approach in that computer software claimed by itself or as a record on a carrier is not patentable, irrespective of its content but if the subject matter as claimed makes a technical contribution then patentability should be not be denied merely on the ground that a computer program is involved in it implementation. The Guideline gave an example of a data-processing system having a small fast working memory and a larger but slower further memory. Then if a new computer software combined the two memories together and organized and resulted to an effect that both memory achieved a maximum space as if the date was loaded entirely in the fast memory. The effect of the program in virtually extending the working memory is of a technical character and might therefore support patentability.
9 However, such protection is limited to computer software that resulted to a technical effect. Mere computer software that does not resulted to any technical effect i.e. similarly to a "mere mental act" would face a difficulty to be protected under the Malaysia Patent
10 Cassey Lee Hong Kim "Implementing Competition Policy in Malaysia" Trends in Southeast Asia Series 14(October 2003) at pg 3 – the original paper was delivered on 27 March 2003 at the seminar on Malaysia Selected Economic Issues and the Challenges Ahead organized by ISEAS
11 Ibid; Lee at page 4 and 5
12 Communication and Multimedia Act 1998
13 Ibid, Section 134(1) and (2). It is the duty of the Commission to publish the guideline in determining the act of "substantial lessening of competition"

14 Ibid, Section 135"
15 Ibid, Section136"
16 Ibid, Section137, this section provides that the Commission may determine that a licensee is in a dominant position in a communications market. It further provides in Section 138(1) that that the Commission may publish guidelines, which clarify how it will apply the test of "dominant position" to a licensee. Section 138 (2) highlight the factors that are taken into account includes:(a) the relevant economic market;(b) global technology and commercial trends affecting market power;(c) the market share of the licensee;(d) the licensee's power to make independent rate setting decisions;(e) the degree of product or service differentiation and sales promotion in the market; and (f) any other matters which the Commission is satisfied are relevant.
17 Chew Phye Keat, Competition law in Malaysia: Is this the last nine yards? Asia IP, September 2009 at page 31
18 The Star Online January 25, 2010, this news was reported by Mazwin Nik Anis under the title of "Malaysia to have antitrust law. Current laws to have more bite" access from the start newspaper online at http:///thestar.com.my]
19 Supra note 17 Chew, at page 31
20 Ibid, Chew at page 32
21 The relationship between competition law and intellectual law within the software industry will be further elaborate in part 3 of this paper. It is worth noted that intellectual property right in particularly software patent have increase the awareness of anti competition activities by multinational companies. Many have argue that the protection of software patent have limit the innovation and thus resulted to control the standard software application within this industry
22 Some example of legislation that exempt intellectual property in it application; Japan Anti Monopoly Act Law under Section 21 stipulates that "The provisions of this Act shall not apply to such acts recognizable as the exercise of rights under the Copyright Act, the Patent Act, the Utility Model Act, the Design Act or the Trademark Act." This section merely states the obvious fact that the Anti-Monopoly Act shall not apply to such acts Singapore Competition law provides under section 10 that an intellectual property right is treated as any other form of private property; The exercise of an intellectual property right by a dominant undertaking will not usually be an abuse when limited to the market for the specific product which incorporates.
23 Christopher Heath, Intellectual Property and Anti Trust, 2003Japan Patent Office, Asia-Pacific Industrial Property Centre, JIII at page 4 and 5
24 Ibid Heath, at page 6 the author identified this notion as the four tiers theory, whereby the relation of competition policy and intellectual property fall in four possibilities of exercising intellectual property rights in the background of anti-trust law, i) lawful exercise of rights within it limits, ii)unlawful exercise of rights within its limit, iii) lawful exercise of right beyond it limit and iv) unlawful exercise of rights beyond its limit
25 Haris Apostolopoulos, Refusal to deal Cases of IP at the Aftermarket in the US and EU Law: Converging of Both Law Systems Through Speaking the Same Language of Law and Economics; 7 JICL 144 ; at 149
26 Ibid Apostolopoulos; at page 150
27 David R. Boyko, Antitrust Limits on Exploiting Intellectual Property Rights, 13 St. John's J. Legal Comment. 171, at page 199
28 Supra note26, Apostolopoulos ; at page 146
29 Ibid Apostolopoulos; at page 147, the author further express, the right holder is enable to prevent competitor from exploiting the protected work but may not prohibit the development and the use of competing technology. Therefore, intellectual rights can only exclude competition by imitation but further competition by substitution
30 United States v. Microsoft Corporation 84 F. Supp. 2d (D.D.C 1999)(facts), 87 f. Supp 2d 30 (D.D.C 2000) (legal conclusion), 97 F. Supp 2d 59 (D.D.C 2000) (final decision) appeal denied by Supreme Court, 530 U.S. 1301 (2000)
31 Ibid, 84 F. Supp. 2d 9 (D.D.C 1999)(facts)
32 Supra note 30, Microsoft Case
33 Robert Hart, Peter Holmes and John Reid, The Economic Impact of Patentability of Computer Programs, 19 October, 2000 Intellectual Property Institute, London
34 Grant C. Yang, The Continuing Debate of Software Patent and Open Source Movement, 13 TEX. INTELL. PROP. LJ 171, 186 ,2005
35 Aaron D. Charfoos, How Far have we come and where do we go from here. The status of global computer software protection under the TRIPS Agreement, 22 NW. J INTL L & Bus, 287 (2002)
36 Jean Paul Smets and Hartmut Pilch, Software patentability with Compensatory Regulation: a Cost Evaluation, Upgrade Vol. II, No 6 December 2001, 23 at page 26
37 Ibid Smets and Plich at page 26 and 27
38 Elliot Maxwell Innovations: Technology, Governance, Globalization Summer 2006, Vol. 1, No. 3: 119–176
39 See Microsoft Case supra note 30
40 IMS Health GmbH & Co OHG and NDC Health GmbH & Co OHG, C-418/01, (2004) ECR 1-503, (2004)4 CMLR 1543
41 Article 82 of the European Community Treaty provides: Any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the common market insofar as it may affect trade between Member States. Such abuse may, in particular, consist in:(a)directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; (b)limiting production, markets or technical

development to the prejudice of consumers; (c)applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (d)making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of contract

42 Supra note 40 , IMS Health Case
43 Supra note 38 , Maxwell at 127
44 Mikko Valimaki, Software Interoperability and Intellectual Property Policy in Europe, 3 EUR REV of POL TECH, December 2005 at page 5
45 Jean Paul Smets and Hartmut Pilch, Software patentability with Compensatory Regulation: a Cost Evaluation, Upgrade Vol. II, No 6 December 2001, 23 at page 26
46 Evan & Layne-Farrar; software patent and open source, the battle over intellectual property rights, 9 VA. JL& TECH 10, 2004 at page 16
47 Ministry of Economic Trade Industry Japan, an Interim Report of "Study Group on the Legal Protection of Innovation" (herein after refer as METI Report), Commerce and Information Policy Bureau, 11 October 2005
48 Ibid, see paragraph 1
49 Microsoft v. Commission, CFI 5/2001, 7-201/04
50 See Article 82 supra note 41
51 Supra note 49, the European Microsoft`s case, see paragraph 312
52 ibid see paragraph 229 and 375
53 US Federal Trade Commission Report, To Promote Innovation: The Proper Balance of Competition and Patent Law Policy, October 2003, Chapter 3 see page 44
54 ibid at pages 44 and 45
55 15 U.S.S (Sherman Act) provides under section 2 "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $100,000,000 if a corporation, or, if any other person, $1,000,000, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court."
56 Supra note 27, Bayko at page 181. For further understanding on this issue see case Kodak I. 504 U.S. $51. 479n.29 (1992)
57 UK Copyright, Designs and Patent Act 1988 [UK Copyright Law (Computer Programs) Regulation 1992], Section 50B(1)and (2)
58 Ibid at Section 50B(4) which provides "Where an act is permitted under this section, it is irrelevant whether or not there exists any term or condition in an agreement which purports to prohibit or restrict the act(such terms being, by virtue of section 296A, void)"
59 Ibid at Section 50B(1)
60 Ibid at Section 50B(3)
61 Alan Bundy, Hector Macqueen, The New Software Copyright Law, The computer Journal, Vol. 37 , No. 2 (1994) 79, at page 81
62 Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs
63 Supra note 44, Valimaki at page 4
64 Ibid
65 Supra note 62, EC Council Directive, Article 6(2)(a)and(b)
66 Ibid Article 6(2)(c)
67 US Copyright Act 17 U.S.C § 107 provides; "Notwithstanding the provisions of section 106 and 106A the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include (1) the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes;(2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work. The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors."
68 Sega Enterprises Ltd v Accolade Inc. 977 F. 2d 1510 (9th Cir. 1993)
69 ibid
70 Michael Chapin, Sharing the Interoperability Ball on the Software Patent Playground B.U. J. SCI. & TECH. L. Vol. 14, 220 (2008)
71 Supra note 68, Sega`s Case; See also Sony Computer Entertainment, Inc. v. Connectix Corp., 203 F.3d 596, 602-04 (9th Cir. 2000) (recognizing intermediate copying in the form of reverse engineering to access functional elements of a software program to achieve interoperability)
72 Digital Millennium Copyright Act of 2000, 17 U.S.C. (1998)
73 Ibid, 17 U.S.C. § 1201(f)(1)

74 Ibid, 17 U.S.C. § 1201(f)(4)
75 Diamond v. Diehr , 450 U.S. 175, 187 (1981)
76 Re Alappat 33F 3d 1526 (1994)
77 Supra note 70, Chapin at page 226 and 227
78 Supra note 30, Microsoft case
79 Supra note 70, Chapin at page 227
80 Proposal for a Directive of the European Parliament and of the Council on the Patentability of Computer implemented inventions, 2002/0047 (COD), 20th February2002
81 European Parliament legislative resolution on the Proposal for a Directive of the European Parliament and of the Council on the Patentability of Computer implemented inventions (COM (2002) 92 -C5-0082/2002-2002/0047 (COD), Amendment 76; Article 6a.
82 Roman Heidinger, Patent Protection of Software in Europe, MR-Int. Vol. 1 (2004) page 57, at page 61 and 62
83 Supra note 62; EC Council Directive for Copyright Protection
84 Alexander Batteson, Computer Law & Security Report Vol. 20 Issue 1 January 2004Page 12, at page 14 and 15
85 Malaysia Patent Act 1983, Section 37(1)
86 ibid, Section 45
87 Malaysia Copyright Act, Section 13(2)(a)
88 ibid, Section 13(2)(b)-(p) some of the list that provides therein is the usage of work for the purpose of parody, recording of work for the purpose of examination, broadcasting of news, review and quotation for research.
89 Which in this case relate to the limitation for the purpose of interoperability as being approach by other jurisdiction under their copyright legislation as well within the meaning of anti competition act under the competition legislation
90 Ida Madieha Abdul Ghani Azmi; Some thoughts on the Interface between Copyright and Competition Policy: The Malaysian Perspective , (2003)2 CLJ xvii
91 Supra note 53, US Federal Trade Commission Report; at page 45
92 Supra note 57, See UK Copyright, Design and Patent Act, at Section 50B
93 See US Digital Millennium Copyright Act and EC Copyright Directive, supra at note 45 and 62
94 See Microsoft case with have been deal with both US and European jurisdiction at supra note 30 and 49
95 The Ministry of Domestic Trade, Cooperative and Consumerism have announce that a draft bill is in place and would be up for its first reading in Parliament in March 2010 and is expected to be enforce by the end of year 2011. The drafted bill is laminated with 3 essential elements which are (a) anti competitive agreements, (b) abuse of dominant position and (c) mergers having the effect of substantially lessening competition. The three pillars address (to a certain extent) in the drafted bill is essentially what most competition legislations from other countries have been addressing; see supra note at 17 and 18
96 Article 82 EC provides that "... abuse may, in particular, consist in: (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; (b) limiting production, markets or technical development to the prejudice of consumers; (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.
97 Supra note 17, Chew at page 33
98 Malaysia Copyright Act 1987; Part IV, Section 40
99 Malaysia Copyright Act 1987, Part III Section 13(p)
100 This section provides that "Notwithstanding subsection (1), the right of control under that subsection does not included the right to control- (a) the doing of any acts referred to in subsection (1) by way of fair dealing for the purposes of non-profit research, private study, criticism[, review] or the reporting of current events, subject to the condition that if such use is public, it is accompanied by an acknowledgment of the title of the work and its authorship, except where the work is [in connection with the doing of any of such acts for the purposes of non-profit research, private study and the reporting of current events by means of sound recording, film or broadcast]
101 See case Sega Enterprises at supra note 68
102 UK Copyright Design and Patent Act 1998 UK Copyright Design and Patent Act 1988 as amended by the Copyright (Computer Program) Regulation 1992, Section 50B(1) (a)-(b)
103 Ibid, Section 50B(2)
104 See supra note 87
105 See supra note 68
106 See supra note 81

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